LEVEL OF PHYSICAL ACTIVITY AND MOTIVATION AMONG THE MIDDLE AGED PEOPLE

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GUIDE

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CHAPTER 1
INTRODUCTION

Physical activity is a fundamental aspect of human existence. Throughout millions of years of evolution, the human body has developed into a sophisticated organism with the ability to carry out a wide array of tasks. These tasks range from utilizing large muscle groups for activities like walking, running, and climbing, to executing intricate actions that require precise manual dexterity (Taylor, D, 2012) Engaging in physical activity and participating in healthy sports are crucial for maintaining our overall health and well-being. They form an integral part of a healthy lifestyle, alongside a nutritious diet, a tobacco-free life, and the avoidance of other substances that can be detrimental to our health.

The regular engagement in suitable physical activity and sports has been proven through available experience and scientific evidence to offer a diverse array of physical, social, and mental health advantages to individuals of all ages, genders, and conditions, including those with disabilities including persons with disability, with wide range of physical, social and mental health benefits (World Health Organization, 2003). It is crucial to note that physical inactivity has been identified as a separate risk factor for various chronic diseases and conditions that pose a threat to the overall health of the population.

Nevertheless, a small portion of the populace is presently achieving the suggested standards of consistent physical activity, which are connected to significant health and quality of life advantages (King, A. C., 2001). Compelling evidence from reputable research indicates a clear correlation between heightened physical activity, engagement in exercise, and enhanced health among elderly individuals. Globally, approximately 3.2 million fatalities annually are linked to lack of physical activity (A.C.King, 2001). There is substantial evidence from well-conducted studies to firmly endorse the favorable correlation between heightened levels of physical activity, engagement in exercise, and enhanced health among elderly individuals. Globally, approximately 3.2 million deaths annually are attributed to a lack of physical activity (Taylor, D. , 2012).

Physical activity refers to any movement carried out by the skeletal muscles that leads to the use of energy. The energy needed for an activity can be quantified in kilojoules (kJ) or kilocalories (kcal), with 4.184 kJ being equal to 1 kcal. The kJ is the preferred unit as it measures energy expenditure. When expressed as a rate (kcal per unit time), the energy expended by individuals varies continuously from low to high. The total caloric expenditure from physical activity depends on the amount of muscle mass involved in the movements, as well as the intensity, duration, and frequency of muscle contractions.

Physical activity is essential for maintaining life, but the extent of it greatly depends on personal preferences and can differ significantly among individuals and even within the same person over time. The most commonly used time units to measure the energy expended in physical activity are the week and the day. Additionally, analyzing physical activity during monthly, seasonal, or yearly intervals can help determine its consistency over longer periods of time.

The city of Bengakuru is popularly known as the “Garden City” of India besides being an education hub, medical hub and also IT hub. The city has more than 1200 parks and green areas offering the spaces for leisure walk outside of their homes and also for the safari and ecospecies sanctuaries.

According to Macro trends analysis, the population of the Bangalore metropolitan has seen an exponential growth over the years. The population in metropolitan area in 2025 is 1.43 crores reflecting an increase of 2.76% over the pervious year 2024 which is quite the same as projected by the Bangalore District official Census of 2011. Year on Year growth from 2021 to 2022 is 3.35% and 2022 to 2023 us 3.15% which is a very steady upward trend. The city of Bengaluru has the highest share of youth in the age brackets of 19-30 and 31-40 years. The middle aged population in the city is 4275176 (approx.) as per the survey of the Government of Karnataka for the Union elections of 2023.

According to the Bruhat Bengaluru Mahanagara Palike ward wise park information count official published report of 2015, the total parks in the city is 1288 with highest park density in the country across the five zones identified in the city. According to the survey conducted by the BBMP for park maintenance and facilities in 2017, the survey revealed that out of the available parks 192 parks were equipped with play grounds within the jurisdiction of the parks within the BBMP. According to it, parks and playgrounds span only 19km^2 , constituting only 3% of the

city area falling $10m^2$ per person short of the benchmark prescribed by the Ministry of Urban Development's URDPFI guidelines.

Bangalore has a tropical savanna (Aw) climate characterized by clearly defined wet and dry seasons, moderated by its elevation of approximately 900 m above sea level. The summer months (March–May) are generally warm, with average high temperatures increasing from 33 °C in March to about 34.1 °C in April, and mean low temperatures around 22.1 °C. However, there are instances of heatwaves that can push temperatures above 38–40 °C.

Winters (December–February) are mild, with daytime temperatures ranging from 14 °C to 28 °C and nighttime lows typically around 15–16 °C, although extreme cold spells dropping below 10 °C are uncommon. Overall, the climate of the city is considered pleasant due to its moderated seasonal fluctuations.

The monsoon season (June–September) accounts for the majority of Bangalore's rainfall, contributing to an annual average of approximately 900–1,070 mm. In recent years, this figure has varied, ranging from about 859 mm to over 1,200 mm, with a peak of 1,957 mm recorded in 2022. Rainfall usually occurs during afternoon or evening thunderstorms, which provide cooling relief to the city but can also lead to traffic congestion and localized flooding. The combination of the city's distinctly dry winters and pronounced wet monsoon, along with its classification as a tropical savanna, results in a year-round climate that is predominantly mild and favorable for outdoor activities.

The state of mind and physical health of an individual are positively correlated. There empirically proven evidence regarding the regular practice of appropriate physical activities and social, mental and physical health benefits. The level of physical activity to be undertaken by the people differs according to their age and sustaining capacity.

It is generally known that physical activity influence the quality of life, well-being, cognitive function and physical function at every stage of life. The middle aged people if start participating

in physical activities and take up suggested volume. Then that would lead to holistic development of health and well-being.

The physical activities in the present day business life, is generally taken up with mindsets of conservation of energy expenditure, leisure time pursuit, meting unforeseen emergences, specific health requirements and the like.

The time has come to meet the physical activity as on investment in action leading to multiplicative health social and economic benefits. Parks are a major source of setting available in towns and cities as safe, clean and affordable facilities for the physical activities meeting the diverse sections of the society across all the socio economic levels. The policy makers must act upon the development of parks providing structural requirements leading to physical activity in parks.

The present study is relevant in the present day situations where the physical activity has become a way of life. The relevance of park in inculcating sedentary and active physical activity is imperative.

HYPOTHESIS

1. Frequencies of participating in leisure time physical activity of middle age men and women may differ.
2. Physical activity will differ according to age.
3. Physical activity will differ according to Occupation.
4. Physical activity will differ according to gender.
5. Physical activity will differ according to Health Aspects
6. Physical activity will differ according to participation level.
7. Physical activity will differ according to Economical Status
8. Physical activity will differ according to Marital Status

DELIMITATIONS

1. The study will be delimited to 500 park visitors from Bangalore city of Karnataka.
2. 250 Men and 250 Women will be surveyed in the present investigation.
3. The age group of the subjects will range from 36 to 55 years.
4. The study will include collection of data on questionnaires.

LIMITATIONS

1. Socio-economic and cultural background of the subjects will differ.
2. Educational background of the subjects will not be uniform.
3. Health condition of the subjects may not be consistent among all subjects.
4. The way of presenting language skills may be differ

DEFINITIONS OF TERMS

Physical activity

Any bodily movement produced by skeletal muscles that results in energy expenditure above resting (basal) levels. This term broadly encompasses exercise, sport and physical activities done as a part of daily living, occupation, leisure and active transport.

Exercise.

Planned, structured physical activity typically performed with the intent of improving health and/or fitness

Aerobic exercise

Exercise that involves continuous, rhythmic movements of large muscle groups, such as walking, bicycling, swimming or jogging, normally lasting for at least 10 minutes at a time. This type of exercise depends primarily on the aerobic energy-generating processes in the body (i.e. heart, lungs, cardiovascular system and the oxidation of fuels in skeletal muscle). Moderate-intensity aerobic activities range from 3–6 metabolic equivalents (METS) and include brisk walking, dancing, light cycling, gardening and domestic chores. Vigorous-intensity activities (>6 METS) include running, climbing stairs or hill walking, fast cycling or swimming, aerobics and most competitive sports and games.

Resistance exercise

Brief repetitive exercise using weights, weight machines, resistance bands or one's own body weight (e.g. push-ups) to increase muscle strength and /or endurance

Flexibility exercise

A form of activity, such as lower back or hamstring stretching, that enhances the ability of joints to move through their full range of motion.

Aerobic training

Exercise training involving periods of predominantly aerobic exercise activities, such as running, cycling or swimming, performed for the purpose of enhancing cardio respiratory fitness, performance and/or health

Resistance training

Exercise training, involving brief repetitive exercises with weights, weight machines, resistance bands or one's own body weight (e.g. pushups) performed for the purpose of increasing muscle mass and strength. This type of exercise uses predominantly anaerobic energy generating systems in skeletal muscle

High-intensity interval training

A type of aerobic exercise training based on alternating between short periods of vigorous intensity exertion and periods of rest or lower intensity exercise; commonly performed using a predominantly aerobic exercise modality, such as running or cycling

Cardio respiratory fitness

A health-related component of physical fitness defined as the ability of the circulatory, respiratory and muscular systems to supply oxygen during sustained physical activity. Typically measured via a treadmill or cycle ergo meter test and expressed as maximal oxygen uptake (VO2max) relative to body mass or in metabolic equivalents (METS).

Musculoskeletal fitness

Ability of skeletal and muscular systems to perform work (exercise). Muscular strength and muscular endurance are components of musculoskeletal fitness

Cardio respiratory endurance

Ability of the heart, lungs and circulatory system to supply oxygen to working muscles efficiently

Muscular strength

Maximal force or tension level produced by a muscle or muscle group.

Muscular endurance

Ability of muscle to maintain sub maximal force levels for extended periods

Physical fitness

Ability to perform occupational, recreational and daily activities without undue fatigue. A set of measureable health and skill-related attributes that include cardio respiratory fitness, muscular

strength and endurance, body composition, flexibility, balance, agility, reaction Time and Power.

Maximum oxygen uptake (VO2max)

Maximum rate of oxygen utilization during exercise.

METS

The ratio of a person's working (exercising) metabolic rate to the resting metabolic rate. One MET is equivalent to the energy expended while

sitting at rest

1.41 RESEARCH QUESTION AND HYPOTHESIS

Research Question 1 (RQ1) : Does the dimensions viz. Gender, Age, Marital Status, Economic Status, Sources of Persuasion, Access to Park, Socialization, Time Spent, Number of Days, Components of physical fitness, Form of Physical activity have an influence on the motivation for the Physical Activity among the middle aged People ?

Research Question 2 (RQ2) : Does the dimension viz. Gender, Age, Marital Status, Economic Status, Sources of Persuasion, Access to Park, Socialization, Time Spent, Number of Days, Components of physical fitness, Form of Physical activity have an influence on the level of Physical Activity among the middle aged People?

1.42 OPERATIONAL DEFINITION OF CONCEPTS

Physical Activity

Physical activity is defined as any bodily movement using the facilities and equipment that make physical activity parks during the park visitation

Parks

This includes a wide range of close-to-home facilities and services available at low or no cost to most residents in Bangalore.

Leisure Time Physical Activity (LTPA)

LTPA are the activities that one participates in leisure time. The activities are physical in nature which result in expending energy, they can be competitive, non-competitive or for self-enjoyment (Tsai, 2005). They could be physical recreation activities, team sports, individual sports or exercises like jogging and gym.

Motivation

The internal and external factors leading to the Physical Activity to the respondents in the Park.

Bangalore City : The sample area is restricted to the city of Bangalore.

CHAPTER 2
REVIEW OF LITERATURE

INTRODUCTION

The research study has set forth four objectives and related research questions. The review of literature is undertaken according to the objectives and the research questions. The concerned variables as related to the Physical Activity in the parks among the middle aged people have been identified according to the focus areas. There is an attempt to muster the literature relating to the Physical activity in the parks.

2.1 REVIEW OF LITERATURE

The review of literature for the present study is done according to the set objectives and also the global context. Thematic reviews of the literature are organized according to the objectives identified for the research topic under consideration.

George Papathanasiou (2020) Ageing is associated with a significant increase in the prevalence of chronic degenerative disturbances. The changes associated with progressive ageing make the elderly more susceptible to cardiovascular diseases (CVD), such as hypertension, heart failure, cardiac valvular disorders, and various types of arrhythmia. Worldwide, it has been estimated that ischemic heart disease is the leading cause of global mortality, whereas CVD accounts for 45% of all deaths in Europe and 37% of all deaths in the European Union (EU). Overall CVD is estimated to cost the EU economy €210 billion a year. In Greece, a state that tops the list of deaths due to ischemic heart disease and stroke, it is estimated that 48% of registered deaths are attributed to circulatory diseases **(George Papathanasiou, 2020).**

Michaela James (2020) our research showed that teenagers (especially girls) were more active if their homes were closer to public transport. This might be because those

living near transport links may not have a car. It might also indicate teens are willing to travel to do things they like, or that they get more activity while traveling to school or to see friends. But being able to travel to physical activities doesn't lessen the importance of local opportunities. Creating opportunities to be active within a community can improve fitness levels, and may be more accessible to people who might not be able to afford public transport. We also found that teenagers performed better on the Cooper Run Test if their school was closer to green spaces. Schools near green spaces may be able to provide better, more active PE classes and outdoor breaks for students **(Michaela James, 2020).**

Alex M. Azar (2018) Regular physical activity is one of the most important things people can do to improve their health. Moving more and sitting less have tremendous benefits for everyone, regardless of age, sex, race, ethnicity, or current fitness level. Individuals with a chronic disease or a disability benefit from regular physical activity, as do women who are pregnant. The scientific evidence continues to build—physical activity is linked with even more positive health outcomes than we previously thought. And, even better, benefits can start accumulating with small amounts of, and immediately after doing, physical activity **(Alex M. Azar, 2018).**

Birgitta Langhammer (2018) Inactivity is associated with alterations in body composition resulting in an increase in percentage of body fat and a concomitant decline in lean body mass. Thus, significant loss in maximal force production takes place with inactivity. Skeletal muscle atrophy is often considered a hallmark of aging and physical inactivity. Sarcopenia is defined as low muscle mass in combination with low muscle strength and/or low physical performance. Consequently, low physical performance and dependence in activities of daily living is more common among older people. However, strength training has been shown to increase lean body mass, improve physical performance and to a lesser extent have a positive effect on self-reported activities of daily living **(Birgitta Langhammer, 2018).**

Director General (2018) Physical inactivity is a leading risk factor for premature death from non-communicable diseases. Conversely, regular physical activity is associated with

reduced risks of heart disease, stroke, diabetes and breast and colon cancer, and with improved mental health and quality of life. Worldwide, 23% of adults and 81% of adolescents (aged 11–17 years) do not meet the global recommendations for physical activity. The prevalence of inactivity varies considerably within and between countries – it is as high as 80% in some adult populations – and inactivity increases with economic development, owing to the influence of changing patterns of transportation, use of technology, urbanization and cultural values. Significant inequities exist, with girls, women, older adults, underprivileged groups and poor people, people with disabilities and chronic diseases, and the inhabitants of rural communities all having less access to safe, accessible, affordable and appropriate spaces and places in which to be physically active **(Director-General, 2018).**

Madeleine Hallion (2018) Physical activity promotes positive health outcomes in middle-aged and older adults, but engagement remains consistently low. Recent research suggests that selfcompassion is linked to positive health behaviors and outcomes and may support the adoption and maintenance of health promoting behaviors. The present study aimed to examine the association between self-compassion and physical activity, with the expectation that self-compassion would add unique variance to physical activity participation over and above previously identified predictors. This was a cross-sectional study of self-report questionnaires. Middle-aged adults (40–65 years) completed questionnaire via an online survey. Based on results from hierarchical regression, selfcompassion was not significantly related to physical activity participation **(Madeleine Hallion, 2018).**

Ronald J. Sigal (2018) Performing physical activity, especially in the heat, places individuals at risk for heat-related injuries. The increase in metabolic heat production augments the rate at which heat must be dissipated to the environment to prevent dangerous increases in core temperature. However, relative to young adults, healthy active adults ≥40 years of age and individuals with diabetes have a restricted capacity to lose heat. This is a result of reductions in the heat loss responses of sweating and skin blood flow, which occur even during short duration and/or light-to-moderate intensity

exercise. Reduced physical fitness and the presence of metabolic, CV and neurologic dysfunctions, which are often associated with diabetes, further exacerbate an already compromised ability to dissipate heat **(Ronald J. Sigal, 2018).**

Sandison (2018) Participating in regular physical activity and limiting the amount of time being sedentary can have significant health benefits—it reduces the risk of chronic conditions and other disease risk factors such as overweight and obesity, and also improves social and emotional health and wellbeing. While there are many opportunities to be physically active every day, our social, environmental and cultural context—as well as the settings in which we live, work and play—are important determinants of physical activity participation **(Sandison, 2018).**

Sangeeta Lachman (2018) In the early 1960s, Morris investigated the association between physical activity (PA) and cardiovascular disease (CVD) prevalence.1 Since then, many studies have confirmed that PA is associated with major health benefits.2–5 However, despite accumulating evidence of health benefits from PA, there is a worldwide trend towards a more sedentary lifestyle and less PA.6,7 In many western countries, the population is ageing rapidly, 8 with profound consequences for public health. Elderly people may have more difficulty engaging in PA compared to middle-aged adults due to frailty and comorbidity. Several recent guidelines and initiatives have recommended more engagement in PA in order to improve public health.9–12 The World Health Organization (WHO) stated that substantial health benefits can be achieved by moderate intensity PA of at least 150 minutes a week, or vigorous intensity PA of at least 75 minutes a week, or any combination of moderate and vigorous intensity PA. However, it is also emphasised that any amount of PA leads to health benefits **(Sangeeta Lachman, 2018)**

Shaun Scholes (2017) Walking around, climbing stairs or ladders, and lifting, carrying, or moving heavy loads were counted as moderate activity for certain occupations.22 Because those who were involved in climbing stairs or ladders, or lifting, carrying or moving heavy loads often did not do these on every working day, the average time spent per work day doing these activities was calculated by multiplying the time

spent doing that activity on an average work day by the number of work days they did that activity, then dividing by the total number of days worked **(Shaun Scholes, 2017).**

Syed Kamaruzaman SyedAli (2018) Maintaining regular exercise every day can bring many benefits to everyone. Of course, it is a healthy body and strength. Exercise also can be effective in improving the mental wellbeing of the general public, largely through improved mood and self-perceptions. Physical activity including exercise can indirectly improve subjective well-being and life quality by keeping disease and premature death at bay, there has recently been an increasing interest in its direct role in the prevention and treatment of mental health problems. Without physical activity, the body muscles will gradually lose their strength, endurance and ability to function properly. Through regular activities to keep all parts of the body in continuous activity, so that you are at a healthy level **(Syed Kamaruzaman SyedAli, 2018).**

Yen T. Chen (2018) investigated the relation of leisure-time physical activity to self-rated memory and the possible mediating role of subjective age in this relationship in middle-aged and older adults. Cross-sectional analyses were conducted with a sample of 1,608 middle-aged and older adults from the second wave of the National Survey of Midlife Development in the United States (MIDUS2). In a path analysis conducted with Mplus, a higher level of leisure-time physical activity was associated with a more positive appraisal of memory compared to others of one's age; younger subjective age partially mediated this relationship. Neither gender nor age-group moderated the association. Age, race, education, marital status, health status, and negative affect were controlled for in the analyses **(Yen T. Chen, 2018).**

Yukitoshi Aoyagia (2018) After adjustment for potential confounders, habitual physical activity is related to body temperature and sleep patterns, with disturbance of these relationships by the onset of lifestyle-related diseases. Axillary temperatures (particularly when going to bed) are higher and better-quality sleep is seen in those who are physically more active(particularly in terms of daily duration of physical activity at an intensity> 3 METs). In individuals aged ≥40 years with hypertension, diabetes mellitus and/or hyperlipemia, both habitual physical activity (step count and duration of activity>3

METs) and axillary temperatures (on rising and on going to bed) are lower, and the time spent lying in bed is longer but the efficiency of sleep is poorer relative to those who remain healthy. Nevertheless, interventional studies are needed to determine whether the observed associations reflect a causal influence of habitual physical activity upon sleep-related phenomena or vice versa **(Yukitoshi Aoyagia, 2018).**

Sean Kilroy (2017) Physical activity in older adults is extremely important in the prevention of and protection from many non-communicable diseases including cardiovascular disease (CVD) which is the leading cause of death worldwide. However, a large proportion of older adults worldwide fail to meet the current recommended guidelines. Thus, to develop preventive lifestyle strategies and identify targets for intervention it is necessary to have information regarding the factors predicting physical activity levels and physical activity patterns. In addition, although physical activity level is inversely associated with CVD morbidity and mortality, the mechanisms involved are complex and the key mediating role that cardio-metabolic risk factors play in the relationship has yet to be fully elucidated. Understanding the predictors and effects of physical activity in older adults is crucial so participation can be appropriately promoted for the primary and secondary prevention in CVD **(Sean Kilroy, 2017)**

Yolanda López-Benavente (2017) In our time, women over 65 have been educated within a culture in which providing care to others has priority over caring for themselves; in addition, the gender imposition associated to housework and serving as a wildcard for other generations hinders the articulation of self-care and the practice of physical exercise. Although the above-mentioned aspects and the perception of a deteriorated health is an important barrier to start and develop physical exercise, the factors related to the need for socialization and the perception of obtaining autonomy and freedom, which women experience during exercise development, strongly impose the initiation and maintenance of physical exercise **(Yolanda López-Benavente, 2017).**

James Me Kinney (2016) Physical activity and primary prevention of all-cause mortality Contemporary studies have consistently demonstrated the inverse relationship between physical activity and rates for all-cause mortality and cardiovascular death

(CVD). Physical activity is an important determinant of cardiorespiratory fitness and fitness is related to physical activity patterns. While physical activity can be difficult to estimate, fitness can be assessed readily using the metabolic equivalent task (MET) to provide an objective measure of a subject's fitness. 4 (See for a definition of MET and other fitness-related terms used in this article.) Although determinants of cardiorespiratory fitness include age, sex, health status, and genetics, the principal determinant is habitual physical activity levels **(James McKinney, 2016).**

Pravel Palicka (2016) discuss the utilisation of digital technologies in education and we focus in more detail on physical education as a subject and we examine the potential of mobile apps designed to support physical activity. The current trend in using digital technology to support physical activity is unstoppable at that time. The growing number of mobile device users maximises the possibility of the better utilisation of these devices for the support of physical activities. The objective of this paper is to create an insight into the use of mobile technologies in the physical education process and to establish the underlying considerations of their use **(Pavel Palička, 2016).**

Pfeifer (2016) General health benefits of physical activity4 Regular physical activity reduces overall mortality risk considerably. In the underlying epidemiological studies, the most physically active groups were compared against the least physically active groups in this regard. The existing international physical activity recommendations that make reference to this point consistently report an approximately 30% lower overall mortality risk for active individuals versus inactive individuals. The WHO recommendations also highlight a lower mortality risk of physically active adults compared with inactive adults. A significant risk reduction of 20 to 33% is reported in the occurrence of cardiovascular diseases through regular physical activity. The recommendations of the World Health Organization emphasize the cardio protective effects of regular physical activity. The risk reduction achievable through physical activity is independent of other known risk factors for cardiovascular **diseases (Pfeifer, 2016).**

Sheri R. Colberg (2016) The adoption and maintenance of physical activity are critical foci for blood glucose management and overall health in individuals with diabetes and

prediabetes. Recommendations and precautions vary depending on individual characteristics and health status. In this Position Statement, we provide a clinically oriented review and evidence based recommendations regarding physical activity and exercise in people with type 1 diabetes, type 2 diabetes, gestational diabetes mellitus, and prediabetes. Physical activity includes all movement that increases energy use, whereas exercise is planned, structured physical activity. Exercise improves blood glucose control in type 2 diabetes, reduces cardiovascular risk factors, contributes to weight loss, and improves well-being **(Sheri R. Colberg, 2016).**

The National Physical Activity Plan Alliance (2016) Research has demonstrated that mass media campaigns can play an important role in promoting physical activity at the population level. Although the effects of stand-alone mass media campaigns promoting physical activity have been modest and inconsistent, strong evidence supports the effectiveness of media campaigns conducted in conjunction with broader multicomponent interventions. Further, a recent review concluded that well-designed mass media campaigns can result in increased activity levels, specifically a significant increase in walking behavior. In addition, individually–adapted behavior change programs, which are increasingly delivered through computer, laptop, and smartphone platforms, have been shown to be effective in increasing physical activity **(The National Physical Activity Plan Alliance, 2016)**

WHO Europe (2016) A large proportion of adults are physically inactive throughout the day, including during the working day and in recreational time; for example, many employees now spend most of their work time sitting, with little or no physical activity. While the health system is an important entry point for the promotion of physical activity, research indicates that many health-care professionals still have insufficient knowledge of the health effects of physical activity, and physical activity counseling is often not reimbursable in current health systems **(WHO Europe, 2016).**

Ana-Maria (2015) Customers go to the gym to practice physical exercises. For this they need a specialist who is either instructor of physical activity, fitness instructor or personal trainer. Practicing exercise, participants improve their quality of life. Specialists

in physical activities appeal to a variety of training methods: verbal, intuitive and practical methods. In addition to the training methods they can use the methods and knowledge of customers, in terms of motor, somatic, functional, and psychological. Also, they can use the methods and means of assessment. Participants who are informed of the risks involved in behaviors such as tobacco use, consumption of fast food on health will be more motivated to practice leisure time physical activities **(Ana-Maria, 2015).**

Guillaume Martinent (2014) The issue of encouraging older adults to be physically active is complex and exercise and its relationship with ageing was strongly analysed from demographic and socio-economical perspectives in the literature. The present study provides support to the motivational factors as an important determinant of exercise. The amount of time individuals allocate to physical exercise depends on the cost of time and their motivation. When the motivation for exercise is high in older adults, the cost of time used for exercise may be lower and individuals have more adherence or interest to engage in it for more hours compared to individuals with a low motivational level. This increase in time spent on physical exercise has positive effects on health outcomes, such as improvement in the physical and mental components of quality of life and a decrease in the metabolic risk factor score **(GuillaumeMartinent, 2014).**

Purity Francis (2014) Physical frailty has been as a result of physical inactivity in many elderly. It was noted that individuals with an internal Locus of Control were significantly more active than those with an external Locus of Control. All individuals, regardless of age can benefit from regular physical activity, vigorous or moderate. Mobility and functioning in older adults, including the frail, can be improved through physical activity and regular physical activity reduces morbidity and mortality from chronic diseases. Level of fitness of older adults need to be evaluate before determining their level of effort for physical activity. Education and awareness of the benefits of physical activities should be provided to both elderly and carers. An activity plan that indicates implementation and maintenance of individual and structured activities should be prepared **(Purity Francis, 2014).**

Walid El Ansari (2014) Understanding the correlates of physical activity can help inform and improve programmes that promote PA among youth. Our findings contribute to the evidence base necessary for appropriate PA interventions for such young adult populations, specifically in higher education institutions. Evidence based physical activity intervention/s at university campuses are highly recommended to attempt to increase the low physical activity level across the Libyan university students. Such interventions would need to be attractive and acceptable to the students, and should be adapted to the existing cultural norms **(Walid El Ansari, 2014).**

WHO (2014) Regular physical activity of moderate intensity – such as walking, cycling, or doing sports – has significant benefits for health. At all ages, the benefits of being physically active outweigh potential harm, for example through accidents. Some physical activity is better than doing none. By becoming more active throughout the day in relatively simple ways, people can quite easily achieve the recommended activity levels **(WHO, 2014).**

Don Mackie (2013) It is never too late for an older person to start participating in regular physical activity, and the benefits of doing so are wide ranging. Incremental increases in physical activity or decreases in sedentary behaviour are both independently associated with reductions in mortality and morbidity risk (WHO 2010). Whatever their age, older people in New Zealand, including those with health conditions, are likely to improve their health and wellbeing, and perform daily tasks more easily with regular physical activity. Significant health benefits can be obtained by doing at least 30 minutes of moderate intensity aerobic physical activity (for example brisk walking) on five days per week.

Importantly, it is also recognized that any level of physical activity and reduction in sedentary behavior is beneficial. Further, a growing body of evidence suggests that additional health benefits can be achieved by including some vigorous-intensity activity. Older people who already meet the recommendations should aim to double the time or increase the intensity of activity to achieve those additional health benefits. Physical activity is beneficial when it is done alone, but it may be even more beneficial when done

in groups. Physical activity is excellent for increasing social interaction which is particularly important for older people. Increasing the amount of physical activity and social interaction has numerous positive effects **(Don Mackie, 2013).**

Marcia.G.Ory (2013) In the face of rapidly escalating aging populations along with age-related declines in physical, cognitive, and/or social functions, regular physical activity has been recognized as one of the most important factors impacting the aging process. Over the past two decades, medications prescribed to prevent the complications or treat the symptoms of chronic illnesses have increased rapidly. Multiple chronic conditions that lead to the loss of independence, quality of life, and economic costs will continue to strain the US healthcare system. The findings of this Community Health Assessment reported the three most common MCC combinations and levels of physical activity for respondents in each of these Groupings. To support the goal of successful aging, endeavors to help middle-aged and older adults maintain regular physical activity are critical. Meanwhile, additional interdisciplinary research including medical, social, health behavioral, and environmental areas is needed to advance this field **(Marcia.G.Ory, 2013).**

Maria Justine (2013) Regular participation in physical activity and exercise has been shown to be beneficial for various physiological systems, and in improving the quality of life of adults. It is recommended that the adult population performs an average of 30 mins of moderate-intensity activities on most days of the week in order to maintain health and prevent chronic illnesses. For senior citizens, it is recommended that individuals perform moderate physical activity at an average of 3–6 metabolic equivalents of task (METs; which is equivalent to brisk walking at a speed of 3–4 miles/hr). Despite such recommendations, many adults, especially middle-aged and elderly individuals, prefer to remain sedentary. Research conducted by the Center for Disease Control and Prevention, United States, in 1996 revealed that more than 60% of the adult population did not participate in physical activity and 25% was sedentary. Similarly, a study from Hong Kong reported that one-fifth of the registered deaths among people aged ≥ 35 years in the country were associated with low levels of physical **activity (Maria Justine, 2013).**

Alpana Sivam (2012) Obesity has risen progressively over the past three decades, and is a major health problem around the world. Biological, psychological, behavioral, and social factors are unable to fully explain or limit the obesity outbreak. Therefore, questions arise about whether a well-designed built environment (BE) can enhance desire and opportunity for physical activities including incidental exercise and recreation in the local community. Many studies in public health have confirmed that physical activity (PA) can help prevent obesity and PA has become a public health priority in modern societies. With individual policies often failing to encourage PA, there has been much focus upon various ecological models that emphasise importance of the BE in promoting PA. Structure and quality of the BE can influence the need, the desire or the opportunity for people to walk, cycle and undertake PA as part of daily routine, incidental exercise for recreation **(Alpana Sivam, 2012).**

Elina Karvinen (2012) The increasing share of older people in the population is a fact and a challenge to social and health care services and exercise activities. The retirement of baby boomer generation as well as the increase in longevity and share of 75+ populations puts pressure on supporting physically active life styles in older people and promoting independent living. Regular exercise promotes health and well-being in all age groups. For older people it is vital. Finnish older people are mobile in everyday life and in individual exercise hobbies. Nevertheless, about one fifth of pension-aged people do not exercise regularly and only a small number fulfills the recommendations for endurance and muscle strength **(Elina Karvinen, 2012).**

Hancock (2012) Despite the large body of evidence that support the benefits of being physically active, in developed countries the majority of adults do not meet the recommended level. Comparing physical activity levels between countries is challenging, because there are no common tools by which it is measured: the international tools such as the International Physical Activity Questionnaire and the WHO's Global Physical Activity Questionnaire are often not part of national surveys. However, it is clear that in developed countries only a minority of adults achieve the recommended levels of physical activity **(Hancock, 2012).**

Lancet (2012) Since the industrial revolution, the development of new technologies has enabled people to reduce the amount of physical labour needed to accomplish many tasks in their daily lives. As the availability of new devices has continued to increase, the effects on physical labour and human energy expenditure have grown to include many aspects of the lives of more and more people. The effects of some of these technologies on physical activity are obvious (e.g., steam, gas, and electric engines; trains; cars; and trucks), whereas others are more subtle and complex (e.g., televisions, computers, electronic entertainment, the internet, and wireless communication devices).

The use of many of these technologies has been driven by the goal of increased individual worker productivity and reduced physical hardships and disabilities caused by jobs entailing continuous heavy labour. However, the human body has evolved in such a way that most of its systems (e.g., skeletal, muscle, metabolic, and cardiovascular) do not develop and function in an optimum way unless stimulated by frequent physical activity. Although the technological revolution has been of great benefit to many populations throughout the world, it has come at a major cost in terms of the contribution of physical inactivity to the worldwide epidemic of non-communicable diseases. In 2009, physical inactivity was identified as the fourth leading risk factor for non-communicable diseases and accounted for more than 3 million preventable deaths **(Lancet, 2012).**

Mia Conradsson (2012) Increasing evidence points towards health benefits from physical activity and exercise and towards the benefits of an active lifestyle. Physical activity refers to bodily movement produced by skeletal muscles, which increases energy expenditure. Exercise is defined as planned, structural movement via skeletal muscles that results in energy expenditure, and with the aim of improving or maintaining physical fitness83. Regular physical activity and exercise is effective in the primary and secondary prevention of several diseases including cardiovascular disease, diabetes, cancer, hypertension, obesity, depression and osteoporosis84-86. The focus has also turned to the risks of being physically inactive, and physical inactivity has been identified as the fourth leading risk factor for global mortality **(Mia Conradsson, 2012).**

Taylor (2012) there is evidence from high quality studies to strongly support the positive association between increased levels of physical activity, exercise participation and improved health in older adults. Worldwide, around 3.2 million deaths per year are being attributed to inactivity. In industrialized countries where people are living longer lives, the levels of chronic health conditions are increasing and the levels of physical activity are declining. Key factors in improving health are exercising at a moderate-to-vigorous level for at least 5 days per week and including both aerobic and strengthening exercises. Few older adults achieve the level of physical activity or exercise that accompanies health improvements. A challenge for health professionals is to increase physical activity and exercise participation in older adults. Some success in this has been reported when physicians have given specific, detailed and localized information to their patients, but more high quality research is needed to continue to address this issue of non-participation in physical activity and exercise of a high enough level to ensure health benefits **(Taylor, 2012).**

Julie Brown (2011) Evidence exists that physical activity interventions are effective in the management of health-related conditions in older people: moderate to vigorous intensity aerobic endurance interventions are effective in vascular disease, heart disease, stroke, cancer, osteoarthritis, neurological disorders, hip injury, and depression resistance training interventions, across a range of intensities, have been shown to be effective in managing vascular disease, stroke, osteoarthritis, frailty, obesity and overweight, hip injury, sleep problems, and depression mobility and balance interventions are effective in managing stroke, osteoarthritis, frailty, and sleep problems interventions combining mixed types of physical activity, across a range of intensities, have shown effectiveness in managing vascular disease, heart disease, stroke, cancer, osteoarthritis, frailty, obesity and overweight, type 2 diabetes, pulmonary disease, neurological disorders, depression, and sleep problems **(Julie Brown, 2011).**

WHO (2011) Physical inactivity is now identified as the fourth leading risk factor for global mortality. Physical inactivity levels are rising in many countries with major implications for the prevalence of no communicable diseases (NCDs) and the general

health of the population worldwide. The significance of physical activity on public health, the global mandates for the work carried out by WHO in relation to promotion of physical activity and NCD prevention, and the limited existence of national guidelines on physical activity for health in low- and middle-income countries make evident the need for the development of global recommendations that address the links between the frequency, duration, intensity, type and total amount of physical activity needed for the prevention of NCDs **(WHO, 2011).**

Abby C. King (2010) as the global population ages, the multi-level determinants of health, function, and quality of life, combined with the prevalence of increasingly inactive lifestyles worldwide, underscore the need for bold, collective actions across sectors and disciplines if the current population trajectories in this area are to be substantively impacted. In particular, identification of ways of broadening traditional "aging in place" paradigms beyond the home setting to the surrounding built and social environments are indicated. Such a paradigm shift involves moving beyond medical model perspectives in embracing multi-level systems approaches that, while more complex, hold promise for impacting population-wide physical activity levels across the life course. Finally, a systems approach to physical activity promotion that explicitly includes the aging adult segment of the population may benefit particularly from recognizing and targeting those societal values and cultural perspectives that extend beyond health **(Abby C. King, 2010).**

Andrew (2010) to an amazing extent, the role of parks and recreation in providing physical activity health benefits was ignored by the health community until recently, but that has changed. The state of knowledge is now such that park and recreation services must be planned and funded based on the known physical activity health benefits they provide. Close-to-home park and recreation resources result in more physical activity and better health for citizens. The evidence is also clear that the public supports additional spending for park and recreation services and that such additional spending results in higher levels of physical activity health benefits. Park and recreation services provide opportunities for physical activity during leisure, and recent research shows that leisure,

not paid work or housework, is now the part of life where the most physical activity occurs. People move their bodies either because they have to or because they want to. The necessity of moving one's body in daily life has declined dramatically, helping produce an epidemic of obesity **(Andrew, 2010).**

Fernando de Andréa1 (2010) the aging process is characterized by the progressive reduction of homeostatic reserves of the many body systems. This decline starts around the fifth decade of life, and is influenced by factors such as genetics, diet, environment, and life style. Some of these factors can be changed, improving or attenuating this process; but they cannot interrupt this process. Today, much more important than chronologically-determined aging is successful aging. The latter is defined as the maintenance of physical and mental functioning and involvement with social and relationship activities. Some recommendations aiming at this objective include orientations about diet and the practice of exercise to improve quality of life. Quality of life is influenced by individual life styles and a healthy life style includes regular exercise, considered one of the most important components **(Fernando de Andréa1, 2010).**

Higgins. Do (2010) Performing exercises that maintain or improve balance may reduce the risk of falls and related injuries. Older adults are at increased risk of falls if they have fallen recently or have difficulty ambulating. Balance exercises and moderate-intensity, muscle-strengthening activities should be performed at least three days a week for a total of 90 minutes, in addition to moderate-intensity walking for about one hour a week. Examples of exercises to improve balance include walking backward or sideways, heel walking, toe walking, and standing from a sitting position. As balance improves, these exercises should increase in difficulty. Stretching activities may help maintain the flexibility necessary to continue regular physical activity. Older adults should perform activities that maintain or increase flexibility on at least two days a week for at least 10 minutes a **day (E.Higgins.Do, 2010).**

Hugh Bethell (2010) Due to advances in healthcare and social care, people are living longer and able to live independently for longer. However, because of the world's ageing

population, the number of people who are dependent is increasing.20 The English National Fitness Survey21 showed that 80% of women and 35% of men aged 70–74 years were physically incapable of walking at 3 mph. Physical capacity becomes increasingly important as age increases. For a 50-year-old, not being as fit as they should be for that age will not make a substantial difference to their daily living (unless they are very unfit). But for an 80- or 90-year-old, poor fitness levels (relative to those for that age group) may mean that the individual is unable to maintain an independent life **(Dr Hugh Bethell, 2010).**

WHO (2010) Physical inactivity is now identified as the fourth leading risk factor for global mortality. Physical inactivity levels are rising in many countries with major implications for the prevalence of non-communicable diseases (NCDs) and the general health of the population worldwide. The significance of physical activity on public health, the global mandates for the work carried out by WHO in relation to promotion of physical activity and NCDs prevention, and the limited existence of national guidelines on physical activity for health in low- and middle-income countries (LMIC) make evident the need for the development of global recommendations that address the links between the frequency, duration, intensity, type and total amount of physical activity needed for the prevention of NCDs **(WHO, 2010).**

Doorley (2009) Promoting physical activity complements national strategies to improve nutrition, and to reduce tobacco, drug and alcohol use. It also impacts positively on efforts to enhance social environments through reduced violence and improved social interaction and integration. These widespread benefits underpin the need to establish and integrate public policy on physical activity in the context of health, education, environment, sport and transport at national and local levels **(Doorley, 2009).**

Wojtek.J.Chodzko-Zajko (2009) Although no amount of physical activity can stop the biological aging process, there is evidence that regular exercise can minimize the physiological effects of an otherwise sedentary lifestyle and increase active life expectancy by limiting the development and progression of chronic disease and disabling conditions. There is also emerging evidence for psychological and cognitive benefits

accruing from regular exercise participation by older adults. It is not yet possible to describe in detail exercise programs that will optimize physical functioning and health in all groups of older adults. New evidence also suggests that some of the adaptive responses to exercise training are genotype-sensitive, at least in animal studies **(Wojtek.J.Chodzko-Zajko, 2009).**

Sport and Health (2008) Opportunities to be physically active tend to decrease as we become adults and recent lifestyle changes have reinforced this phenomenon. Due to the great inventions of recent times, there has been a marked decrease in the amount of physical effort necessary to do daily household chores, to go from place to place (car, bus), and even to reach leisure activities (including those with a physical activity content). According to available data, between 40 and 60% of the EU population lead a sedentary lifestyle. It is therefore important for EU Member States to draw up national plans in support of physical activity in order to help modify unhealthy life habits and promote awareness of the benefits of physical activity in relation to health. These plans would take account of the environment, customs and cultural characteristics of each country. There is evidence that anyone who increases their level of physical activity, even after long periods of inactivity, can obtain health benefits irrespective of their age. It is never too late to start **(Sport and Health, 2008).**

Darren E.R (2006) There is incontrovertible evidence that regular physical activity contributes to the primary and secondary prevention of several chronic diseases and is associated with a reduced risk of premature death. There appears to be a graded linear relation between the volume of physical activity and health status, such that the most physically active people are at the lowest risk. However, the greatest improvements in health status are seen when people who are least fit become physically active. The current activity guidelines promoted by Health Canada appear to be sufficient to reduce health risk. People who engage in exercise at levels above those recommended in the guidelines are likely to gain further health benefits. Health promotion programs should target people of all ages, since the risk of chronic disease starts in childhood and increases with age. In the next issue, we will review how to evaluate the health related physical fitness and

activity levels of patients and will provide exercise recommendations for health **(Darren E.R, 2006).**

Iain K. Crombie (2004) investigate older people's intentions about pursuing leisure time activities, the perceived barriers to physical activity as well as factors that would encourage increased physical activity. Many previous attempts to encourage physical activity have focused on exercise training, often in formal classes using resistance training or aerobic exercise. Recruitment rates are often low and those who take part tend to be healthy and interested in physical activity.

In addition, attrition rates during the intervention period are often high and continuation of the physical activity beyond the period of intervention is low. Older people undertake essential physical activities such as housework or walking to the shops and post of We Engaging in regular leisure time physical activity is an ideal way to increase or maintain levels of physical activity during retirement **(Iain K. Crombie, 2004).**

Linda Nicholson (2004) an extensive literature review was undertaken to identify evidence on health benefits of sport and physical activity amongst older populations. It was clear from this that the relationships between physical activity and general health benefits were widely accepted and understood. There was a substantial body of compelling evidence from a wide range of research studies about the contribution of a healthy lifestyle, which includes regular exercise, to survival.

The association of sport and physical activity with health benefits is of prime interest to policy, as health and well-being at older ages is modifiable with the potential for substantial gains to be made through the promotion of regular participation in sport and physical activity. Furthermore, it could be argued that the growing body of research which has demonstrated significant health benefits associated with regular physical activity of moderate intensity rather than concentrated, formal exercise programmes has provided health promoters with more marketable and achievable goals to endorse **(Linda Nicholson, 2004).**

WHO (2003) Physical activity and healthy sports are essential for our health and well-being. Appropriate physical activity and sports for all constitute one of the major components of a healthy lifestyle, along with healthy diet, tobacco free life and avoidance of other substances harmful to health. Available experience and scientific evidence show that the regular practice of appropriate physical activity and sports provides people, male and female, of all ages and conditions, including persons with disability, with wide range of physical, social and mental health benefits.

It interacts positively with strategies to improve diet, discourage the use of tobacco, alcohol and drugs, helps reduce violence, enhances functional capacity and promotes social interaction and integration. Physical activity is for an individual; a strong means for prevention of diseases and for nations a cost-effective method to improve public health across the population **(WHO, 2003).**

Abby C. King (2001) provides an overview of factors associated with physical activity for older adults and also describes potentially promising interventions for promoting regular physical activity in this growing population segment. Examples of interventions undertaken at personal and interpersonal as well as broader levels of analysis (e.g., environmental) are provided. Physical inactivity has been established to be an independent risk factor for a range of chronic diseases and conditions that threaten the health of the nation. However, only a minority of the population is currently meeting the recommended levels of regular physical activity, which have been linked with important health and quality of- life benefits. Older adults are at particular risk for leading sedentary lifestyles **(Abby C. King, 2001).**

Loretta DiPietro (2001) undertook a literature review of large population-based studies of physical activity in older people, and there is encouraging evidence that moderate levels of physical activity may provide protection from certain chronic diseases. Sedentary behavior is an important risk factor for chronic disease morbidity and mortality in aging. However, there is a limited amount of information on the type and amount of activity needed to promote optimal health and function in older people. The purpose of

this review is to describe the change in patterns of habitual physical activity in aging and the relationship of these changes to physical function and selected chronic diseases **(Loretta DiPietro, 2001).**

Kim Henige has learned that exercise physiology is the study of how the body responds and adapts to physical stress. Exercise is an intentional physical stress placed upon the body. Within the field, both acute and chronic exercise effects are studied. Although exercise physiology is relatively new as a formal discipline, it has likely been studied as far back as the ancient Greeks. currently, exercise physiology is one of many topics traditionally taught within the core of physical education, kinesiology and exercise science programs exercise physiology is an essential part of the curriculum because knowledge and understanding of it permits physical education teachers, athletes, coaches, dance teachers, fitness trainers, and other sport and exercise science professionals to enhance physical performance and health through the application of exercise physiology principles.

Some of the core principles that form the basis of exercise physiology include stress and supply and demand as they relate to physical activity, energy (ATP) use, and physiological training adaptations. The principles of exercise are the foundational guidelines, based on evidence-based science, for planning a successful exercise program. The principles of overload, progression, and reversibility were also discussed in this chapter. Individuals with a degree in exercise physiology are employed in a wide variety of career areas that can be categorized as clinical, fitness, research, sport, and teaching **(Kim Henige)**.

Physical Activity Guidelines for Americans contend that Physical activity is an essential component of a healthy lifestyle. In combination with healthy eating, it can help prevent a range of chronic diseases, including heart disease, cancer, and stroke, the three leading causes of death. Risk factors for these diseases can begin early in life and be mitigated early in life by adopting regular physical activity habits. Physical activity helps control weight, builds lean muscle, reduces fat, and contributes to a healthy functioning

cardiovascular system, hormonal regulatory system, and immune system; promotes strong bone, muscle and joint development; and decreases the risk of obesity. Research has also found that physical activity is related to improvements in mental health, helping to relieve symptoms of depression and anxiety and increase self-esteem. In addition, some studies show that physical activity is correlated with improved academic achievement (Physical Activity Guidelines for Americans)

Roger M. Glaser It has been shown that the same resistance training principles known to be effective for muscle strengthening by nondisabled individuals can be adapted for FES(Functional Electrical Stimulation)-induced training of paralyzed muscles . These include dynamic contractions through a specific range of motion, progressive overload, and multiple sets of exercise consisting of a relatively low number of repetitions at relatively high load resistance. Research studies clearly indicate that several weeks of FES-induced weight training exercise of the quadriceps muscles can markedly increase their strength and endurance for this induced activity **(Roger M. Glaser).**

Paulsen in the 19th and early 20th centuries, architects and urban reformers in New York City and elsewhere helped defeat infectious diseases like cholera and tuberculosis by improving buildings, streets, neighborhoods, clean water systems, and parks. In the 21st century, designers can again play a crucial role in combating the biggest public health epidemics of our time: obesity and related chronic diseases such as diabetes, heart disease, and some cancers. Today, physical inactivity and unhealthy diet are second only to tobacco as the main causes of premature death in the United States. A growing body of research suggests that evidence-based architectural and urban design strategies can increase regular physical activity and healthy eating **(Paulsen).**

2.2 RESEARCH GAP

The Physical activity has become inevitable in the present times as the sedentary lifestyle has very strongly inclined towards busy work life. Dwelling in cities like Bengaluru has made people struggle in taking time out for the personal life let alone the

Physical activity. The BBMP has taken utmost care in setting up of the parks in the localities making it convenient for the residents to go to parks for doing the Physical Activity. The middle aged people lack the physical strength in doing the Physical activity. The parks in the immediate vicinity comes very handy and also convenient for doing the Physical activity to the middle-aged people.

The Physical activity guidelines are quite relevant in the advanced economies as they place emphasis on the public health. The awareness about the importance of Physical activity among the Indians is very less. The majority of the middle aged especially is estranged about the health initiatives personally. There is an increased need to resort to Physical activity.

The Parks are an immediate source to do Physical activity. The present study is relevant as the modern days have left the people across all ages to suffer physical, mental, psychological and social problems and issues. The sedentary lifestyle, stress at work, life in cities and the like are the reasons that hold them back from apportioning the time to the Physical Activity. The present study tends to introspects into these areas.

Chapter 3
RESEARCH METHODOLOGY

The third chapter elucidates the research methodology adopted for the research. The present study has collected the primary data from the middle aged park visitors taking up the physical activity identified in the different parts of the city of Bengaluru. The topic revolves around the Physical Activity performed by the individuals belonging to middle age category in the city of Bengaluru in the parks. The secondary data is also verified to justify the study under consideration. The data collection, the analysis and interpretation are exhibited in the chapter.

3.1 METHODOLOGY

1. Participants

The subjects for the study is 500 park visiting middle aged men and women from Bangalore city of Karnataka region. Equal representation for men (N=250) and women (N=250) participation is considered in the study. Their age ranges between 36 to 55 years. Exclusion criteria has been included for the physical disabilities chronic illness, alcohol consumption, smoking and chewing tobacco products.

2. Tools of Data Collection

Suitable questionnaires are used by prior permission from the authors in order to assess motivation and constraints for physical activity among middle aged men and women. Further, the questionnaire is modified as per necessity of the present sample. A pilot study has been conducted for this purpose.

The questionnaire is divided into three parts (A) General information (B) Physical Activity participation pattern. (C) Motivations for PA participation. Before answering the questionnaire, there has been a simple guidelines and definition of physical activity in this study. The questionnaire measures the sport or physical activity pattern of the subjects. It emphasizes on the frequency of their participation in physical activities, amount of time they spend on physical activities each time in average. Details on participation in physical activities in the past three months are obtained and asked to them to list three physical activities they usually participated in and types of physical activities they wished to participate.

3. Procedure for the Data Collection

In order to test the hypotheses formulated for the present study, the questionnaire will be administered in field settings. Prior consent will be obtained to participation will be encouraged. The study employed a **simple random sampling** method to ensure that each individual in the target population had an equal chance of being selected. Data were collected **twice daily—during morning and evening hours**—to obtain a comprehensive and representative sample of individuals who visited the park for **physical activity**.

The **target population** consisted of **middle-aged individuals (approximately 40–60 years old)** who frequented the park specifically for exercise or fitness routines. This age group was chosen

based on the study's focus on the health behaviors and physical activity patterns of middle-aged adults.

Prior to participation, **informed consent** was obtained from all selected individuals. Participants were fully briefed on the purpose of the study and their rights, including the **confidentiality** of their information and the **non-disclosure** of any personal data collected. All data were anonymized and used strictly for research purposes.

The **inclusion criteria** for sample selection were as follows:

- Middle-aged individuals (approximately 40–60 years old)
- Regular visitors to the park for physical activity (at least three times per week)
- Willingness to provide informed consent

The **exclusion criteria** included:

- Individuals outside the 40–60 age range
- Park visitors not engaging in physical activity (e.g., those using the space for leisure or social purposes)
- Individuals with medical conditions preventing regular physical activity
- Refusal to provide consent

The data collection was carried out over a period of **six months**, allowing for the observation of activity patterns over time and across different days and weather conditions, contributing to the depth and reliability of the dataset.

3.2 RESEARCH METHODS USED

I. Descriptive

In the present program the research can only say what has happened and what is happening in the Physical activity and motivation among the middle aged people and its impact on the stakeholders all over the world and the Indian context. However, control cannot be exercised over the dynamic external and internal environment variables. The

researcher can only describe the past and present information on the Physical activity among the middle aged people and its impact on the overall health status.

II. Analytical

The study analyses through statistical tools and techniques on the facts and figures of the selected sample respondents for the study. Further, it aims to quantify the qualitative data on the impact of the Physical activity among the middle-aged people by using scaling techniques.

III. Survey

The researcher before the topic selection rigorously and vigorously reviewed the literatures on the topic and in consultation with the research guide and experts, finalized the research topic. The study has identified independent and dependent variables to establish causal relationship. The data are collected, analyzed, interpreted and findings are noted down.

IV. Inferential

The present research program has collected the data through administering the questionnaire. The inferential data is drawn up through processing of the data.

3.3 SOURCES OF DATA COLLECTION

i) Primary Data

For the purpose of primary data collection, the study relied on well structured questionnaire, schedule, personal interviews, and e-mail survey.

ii) Secondary data

The secondary data on the topic were collected from globally renowned Physical activity text books, empirical research papers, International reports, internet information, published theses, dissertations, internationally acclaimed Physical Education journals, Magazines, and New bulletins, Newspapers, micro-films on the topic.

3.4 AREAS OF STUDY

The Study is restricted to the city of Bangalore

3.5 PROCEDURE FOR DATA COLLECTION

In order to test the hypotheses formulated for the present study, the questionnaire will be administered in field settings. Prior consent will be obtained to participation will be encouraged.

3.6 ANALYSIS OF THE DATA

The collected data is analyzed with the help of statistical packages and tools such as Mean, median, Mode, Correlation, ANOVA, Chi-square, T-Test and so on, and the same are presented using tools such as Tables, Graphs, Diagrams, Figures and the like.

Table 3.1
Research Designs in Current Study

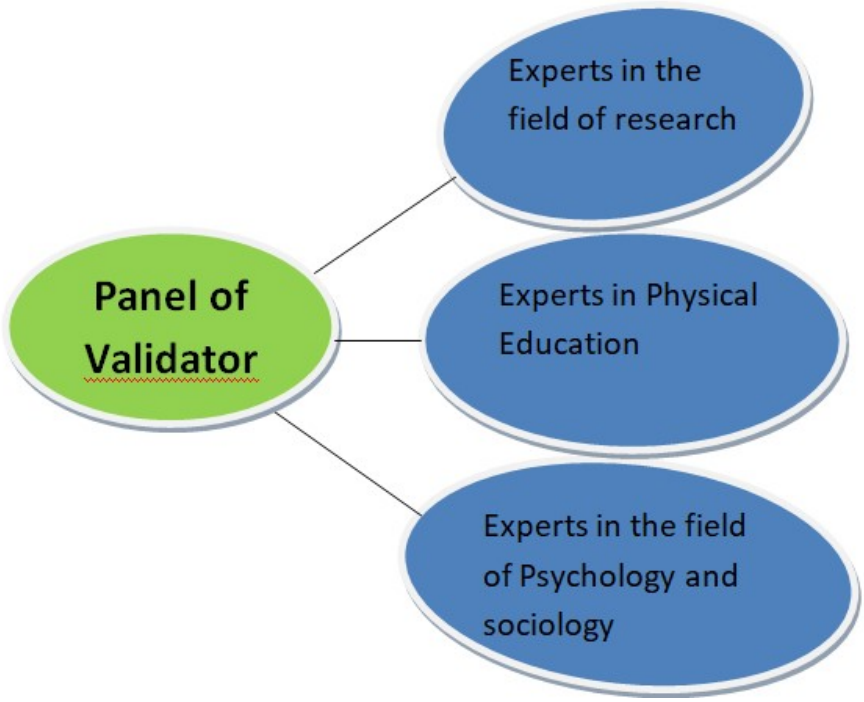
Research Design	Applications in this Study
Exploratory	Literature Review, Factors influencing constructs
Descriptive	Research instrument, Measurement, Hypothesis formulation, Testing, Data analysis and interpretation
Causal	Conceptual framework and its testing

(Source: Compiled by Researcher)

3.7 PANEL OF VALIDATORS

Figure 3.1

Panel of Validators


Panel of Validator
Experts in the field of research
Experts in Physical Education
Experts in the field of Psychology and sociology

The panel of validators was identified to validate the tools based on the following criteria:

- The layouts and presentation
- Suitability to the chosen content
- The suitability of the question
- The sequence of questions
- The scales used for the question
- Standardised questionnaires on the physical activity
- The multiple choice questions and the possible variability

3.8 QUESTIONNAIRE SOURCE

The questionnaire is prepared after thorough review of literature on the topic Physical activity motivations and also that subject experts and researchers have been approached to finalise the same. The self-Determination Theory (SDT) developed by Deci and Ryan, exploring intrinsic and extrinsic motivations, Health Belief Model (HBM) exploring how perceptions of health risks and benefits influence behvaiour, The Physical Activity Motivation Scale (PAMS) developed to measure various motivational factors related to physical activity, and various research articles are also referred to construct the questionnaire.

3.9 RELIABILITY AND VALIDITY OF TOOLS

The validation of the content involves the identification of repetitive tendencies of the subject under consideration comprising the expertise in the subject, tasks and the consolidation of the information on the subject for evaluation (Sire 2021). The tools in the present research study were constructed and put across the expert panel for the observation of the items. The panel were drawn from various universities such as Mangalore University, Kuvempu University and Bangalore University as experts in the fields Psychology, sociology and Physical education. A request letter of validation was sent to the experts drawn from different fields to validate the questionnaire.

Phase I: Selection of the Area

The present study is about the level of Physical activity and motivations undertaken by the middle-aged people in the parks in the city of Bengaluru. The Physical activity guidelines by the public health department is not there in India. As it was a limiting factor, the National Institute of Heath publications (UK),WHO guidelines on Physical Activity and Global Physical Activity Questionnaire (GPAQ) are referred for the questionnaire drafting.

Phase II: Writing of the items

Initially, the researcher prepared 55 statements that were given for the guide review.

Phase III: Preparation of the initial draft

The first draft of the scales identified and constructive and valuable suggestions from the research guide the number of items to 45. The classification was done using five-point and seven-point scales as duly suggested by the guide.

Phase IV: Validation through pilot study of the tools

Validation was done by the various experts drawn from different fields. The suggestions for the revision and improvisation of the structure of the questionnaire was noted and incorporated. The questionnaire was analysed using the SPSS package for the detailed and comprehensive analysis.

3.10 RELIABILITY COEFFICIENTS

The reliability coefficients for each question and complete research instrument are presented in Table Cronbach values above 0.7 are acceptable and denote very good reliability (Nunally, 1978).

Table 3.
Reliability Coefficient (Park Visitors)

Description	Number of Items	Cronbach's Alpha
Physical activity participation levels in the Parks	5	0.715
Physical Activity motivation	7	0.932
Motivation for Exercise/Working Out in the Parks	7	0.725
Motivation for physical activity in the Parks (self-efficacy)	5	0.771
Factors influencing the your level of Physical Activity	5	0.843
Park Environment	5	0.817
Neighborhood environment	5	0.873
Internal Environment Factors	5	0.946
External Environment Factors	5	0.812
Overall	**45**	**0.968**

((Source: Primary Data))

3.11 PILOT STUDY

In the pilot study, the questionnaire was administered to a sample of park visitors. The collected responses were analyzed using statistical software to calculate Cronbach's Alpha for each scale. The results indicated strong internal consistency across most scales. The pilot study confirmed that the questionnaire is a reliable tool for assessing park visitors' experiences and provided insights into necessary adjustments to enhance its accuracy and consistency. The refined instrument has been used for a larger-scale study to further validate and ensure its effectiveness in capturing the diverse factors influencing physical activity and environmental perceptions among park visitors.

3.12 SAMPLING DESIGN

Sampling design comprises three major areas: Population, Sampling method and Sample size estimation.

Population

The population comprises of middle aged individuals visiting parks for physical activity in Bangalore city.

Sampling Method

Deliberate (Purposive or Judgment) Sampling (Malhotra and Birks, 2006) was employed. The survey was based on middle aged individuals visiting parks for physical activity in Bangalore city.

CHAPTER 4
ANALYSIS AND INTERPRETATION OF DATA

Basic Details of the sample respondents

Table 4.1

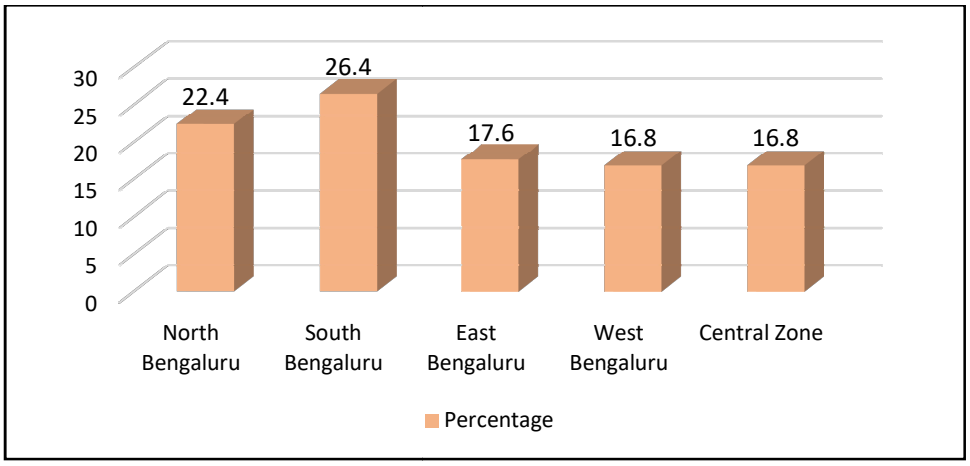
City Zone of the Sample Respondents

Part of Bengaluru	Frequency	Percentage
North Bengaluru	112	22.4
South Bengaluru	132	26.4
East Bengaluru	88	17.6
West Bengaluru	84	16.8
Central Zone	84	16.8
Total	**500**	**100**

Table 4.1 depicts the number of respondents from different parts of Bengaluru city. Majority of the respondents are from South Bengaluru (26.4%) and from north Bengaluru (22.4%). The total number of respondents considered for the current research programme is 500.

Figure 4.1

Part of Bengaluru- Residence of the Sample Respondents



The sample respondents for the present research study are drawn from the diverse locations within Bengaluru. The sample drawn from various locations ensures the representation from the population covering the locations, socio-economic backgrounds and ensures the generalizability and eliminates the bias in the interpretation.

Table 4.2

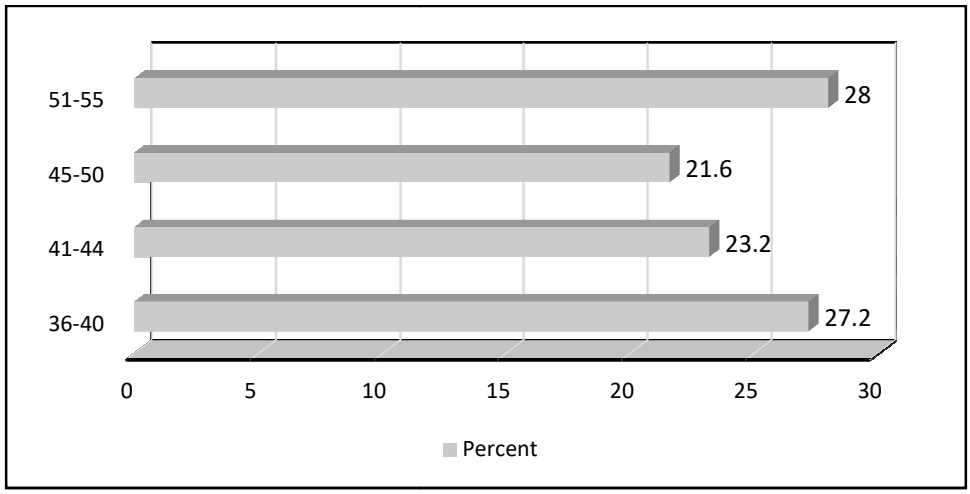
Age of the Sample Respondents

Age in Years	Frequency	Percent
36-40	136	27.2
41-44	116	23.2
45-50	108	21.6
51-55	140	28
Total	**500**	**100**

It is observed from the above table that 28% of the respondents are between the age group of 51-55 years, 27.2 % of them are between 36-40 years of age, 23.2% belong to the age group of 41-44 years and lastly 21.6% of them are between 45-50 years. The age of the sample respondents has a significant impact on the engagement with the physical activity. However the middle aged respondents tend to go for the moderate level of physical activity.

Figure 4.2

Age of the Sample Respondents



The frequency, kind and the motive for the physical activity depends on the personal priorities, health demands and other factors. In the present study, the physical activity in the parks is a constraint for the middle aged as the options available are limited.

Table 4.3

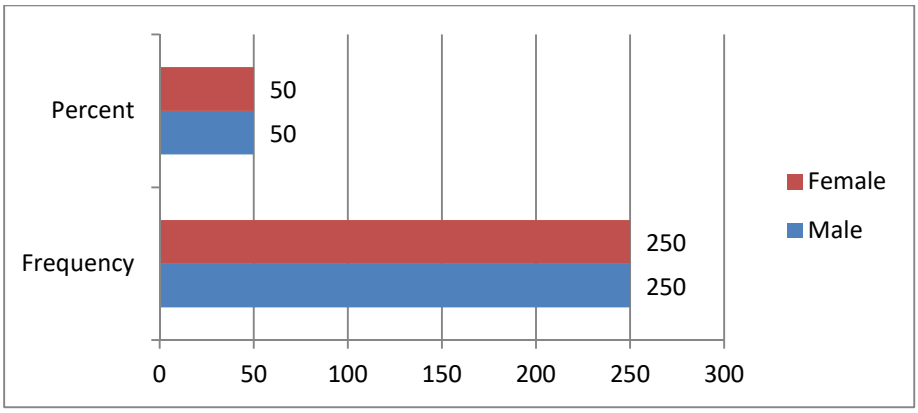
Gender of the Sample Respondents

Gender	Frequency	Percent
Male	250	50
Female	250	50
Total	**500**	**100**

Table 4.3 and Figure show that out of 500 sample respondents, 250 are male and 250 are female. The respondents drawn represent 50% male and 50% female each. Male and female representation is equal.

Figure 4.3

Gender of the Sample Respondents



The samples drawn for the present research programme made a deliberate equal representation of female and male respondents. The total sample drawn account to five hundred representing 250 each.

Table 4.4

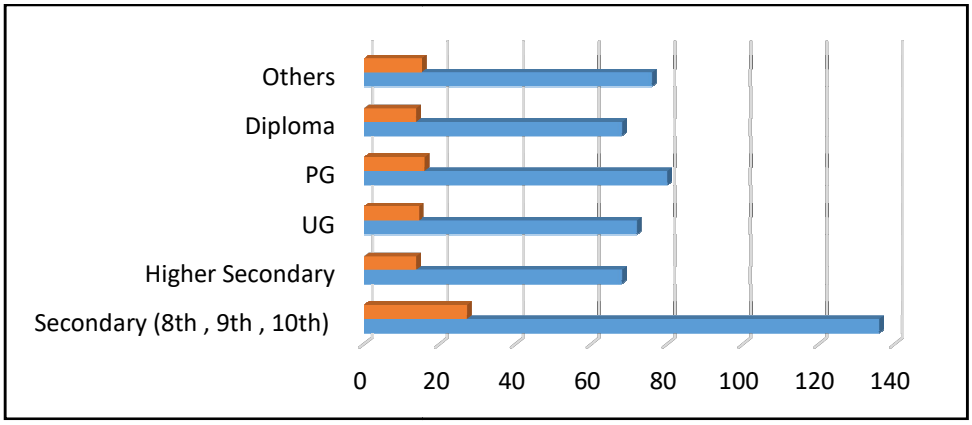
Educational Qualification of the Sample Respondents

Educational Qualification	Frequency	Percent
Secondary (8^{th} , 9^{th} , 10^{th})	136	27.2
Higher Secondary	68	13.6
UG	72	14.4
PG	80	16
Diploma	68	13.6
Others	76	15.2
Total	**500**	**100**

The question was posed to determine the respondents' qualifications. From the above table, as is observed 16% of the respondents are Post Graduates. 15.2% of the respondents belong to other qualification as identified for the study which was specified by them. 27.2% of the respondents have Secondary education qualification. 13.6% of the respondents are Higher Secondary and Diploma holders.

Figure 4.4

Educational Qualification of the Sample Respondents



There is a strong relationship between the educational level and the pursuance of the physical activity undertaken by the individuals. It impacts the awareness they have about the impact of the physical activity on health and well-being of an individual. This is important in drawing the relationship between the educational qualification and physical activity motivation among the individuals.

Table 4.5

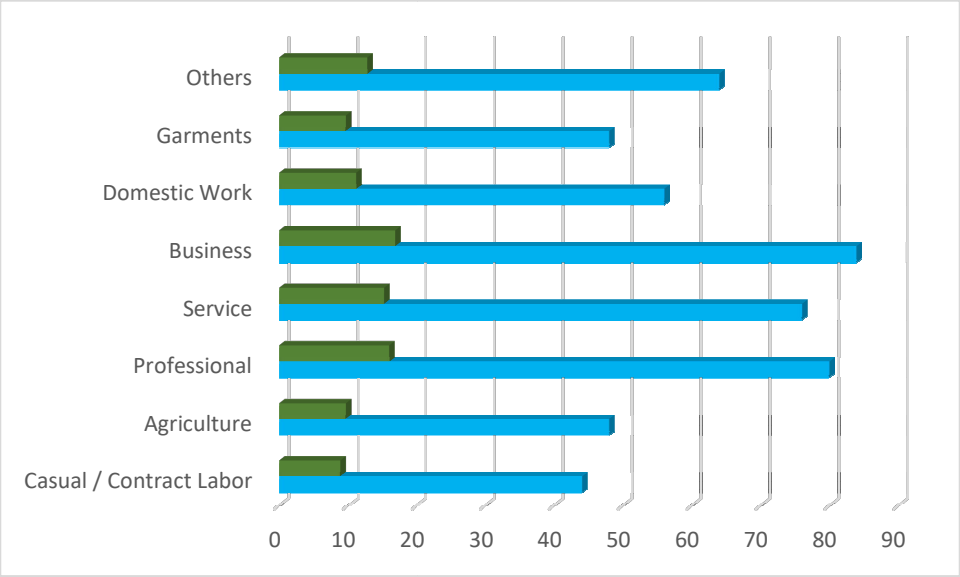
Marital Status and Occupational Status of the Sample Respondents

Marital Status	**Frequency**	**Percent**
Married	240	48
Unmarried	260	52
Total	**500**	**100**
Occupational Status	**Frequency**	**Percent**
Casual / Contract Labor	44	8.8
Agriculture	48	9.6
Professional	80	16
Service	76	15.2
Business	84	16.8
Domestic Work	56	11.2
Garments	48	9.6
Others	64	12.8
Total	**500**	**100**

The above table shows that 52 % respondents are unmarried and 48% are married. There is a relationship between the marital status, occupational status and the physical activity undertaken by the sample middle-aged respondents.

Figure 4.5

Occupational Status of the Sample Respondents



Married individuals will face the problems of balancing the work and personal obligations. Particularly female respondents have growing children and aged people to be looked after at home and are a limiting factor for undertaking the level of physical activity in the parks.

The table indicates that 16.8% of the respondents are Business persons, 16% of the respondents are pursuing the Profession and 15.2% of the respondents are from Service sector, 12.8% of the respondents belong to the others which was not specified by them, 11.2% of the respondents are into Domestic Work for the livelihood, 9.6% of the respondents are Agriculturists and Garment workers. And lastly, 8.8% of the respondents are Casual / Contract Labors.

Occupational status plays a crucial role in the physical activity undertaken by the individuals. The sedentary life style, personal quality time, the personal motivation and other factors depend on the job they pursue for eking the livelihood. A person working for long hours may not get personal time to go to parks for the physical activity.

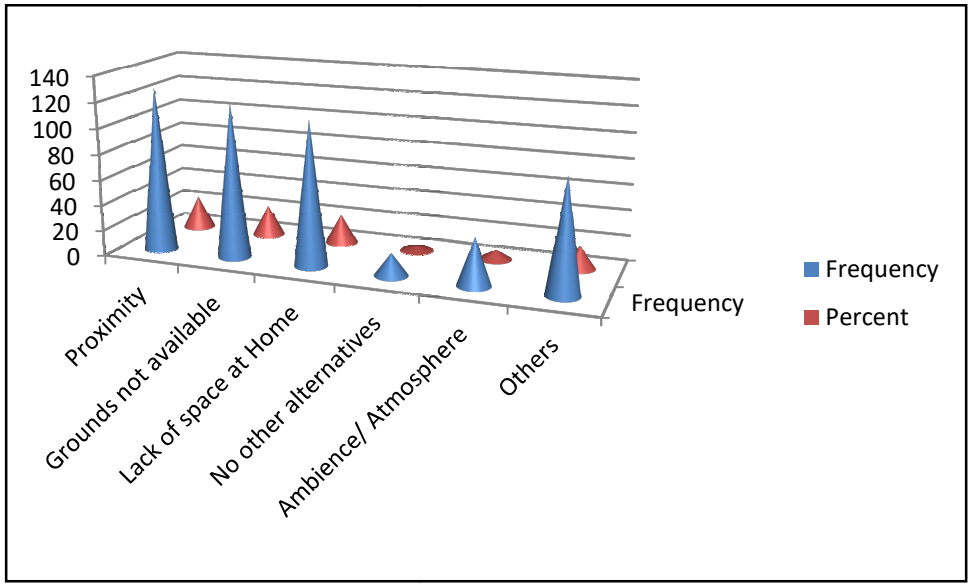
Table 4.6

Reason to choose the Park for Physical Activity

Reason to choose the Park for Physical Activity	Frequency	Percent
Proximity	128	25.6
Grounds not available	120	24
Lack of space at Home	112	22.4
No other alternatives	17	3.4
Ambience/ Atmosphere	36	7.2
Others	87	17.4
Total	**500**	**100.0**

Figure 4.6

Reason to choose the Park for Physical Activity



The middle aged people are the sample respondents for the present research study. The study centres around the level of Physical activity in Parks. The parks play a crucial role in the context of middle-aged people as they have less rigorous physical activity to be undertaken. The nearby parks available is a matter of convenience and also less time consuming as opined by 25.6% of the sample respondents. The city of Bengaluru is very congested as homes are very small having

very less space to undertake physical activities. So the parks are a savior in this regard. The grounds available in Bengaluru that encourages the people to undertake physical activity are very less in number and also located at very far off places leaving very less choice for the residents and have to depend on the parks for the physical activity.

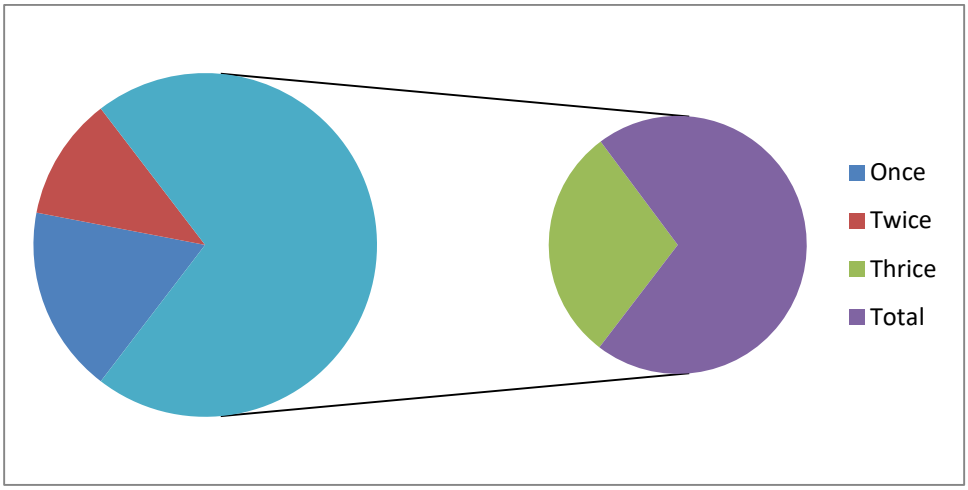
Table 4.7

Frequency of Physical activity in Parks

Frequency of Physical activity in Parks	**Frequency**	**Percent**
Once	176	35.2
Twice	116	23.2
Thrice	208	41.6
Total	**500**	**100**

Figure 4.7

Frequency of Physical Activity in Parks



Above table indicate the frequency of physical activity undertaken in the parks by the sample middle-aged respondents. 41.6% of the respondents visit park thrice in a week. 35.2% of respondents visit once and 23.2% of them visit the Park twice a week to do physical activities. The proximity of the parks plays a very significant role in undertaking the physical activity. The

parks if located in the residential areas is likely to attract the physical activity to influence the regular practice, proximity and consistency.

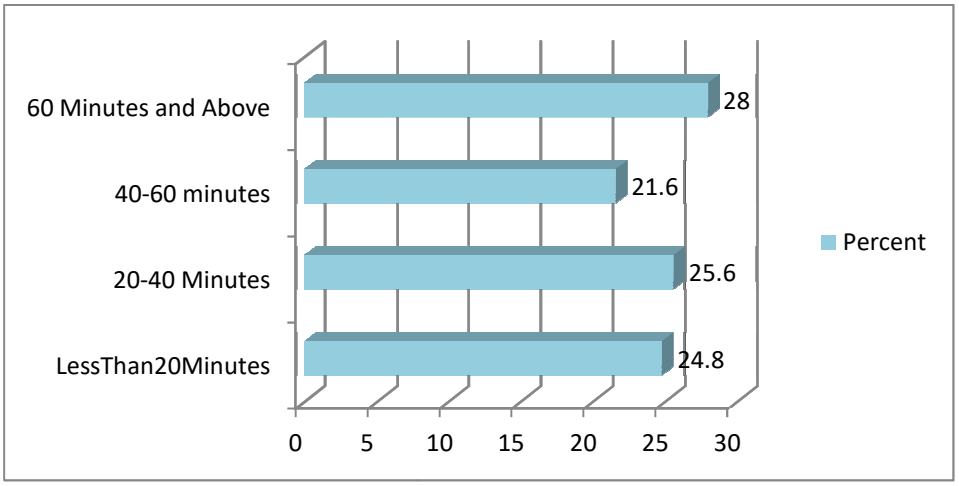
Table 4.8

Duration of Physical Activity

Duration of Physical Activity	**Frequency**	**Percent**
Less Than 20 Minutes	124	24.8
20-40 Minutes	128	25.6
40-60 minutes	108	21.6
60 Minutes and Above	140	28
Total	**500**	**100**

Figure 4.8

Duration of Physical Activity



The responses regarding the duration of physical activities performed by respondents, 28% of the sample middle-aged respondents engage in physical activities for 60 minutes or more, 25.6% engage in physical activities for 20-40 minutes, 24.8% engage in physical activities for less than 20 minutes and 21.6% engage in physical activities for 40-60 minutes. The duration of the

physical activity undertaken helps in aligning the requirement and personal goals. The health concerns and time devoted for the physical activity in the parks depends on the needs and other inevitable factors.

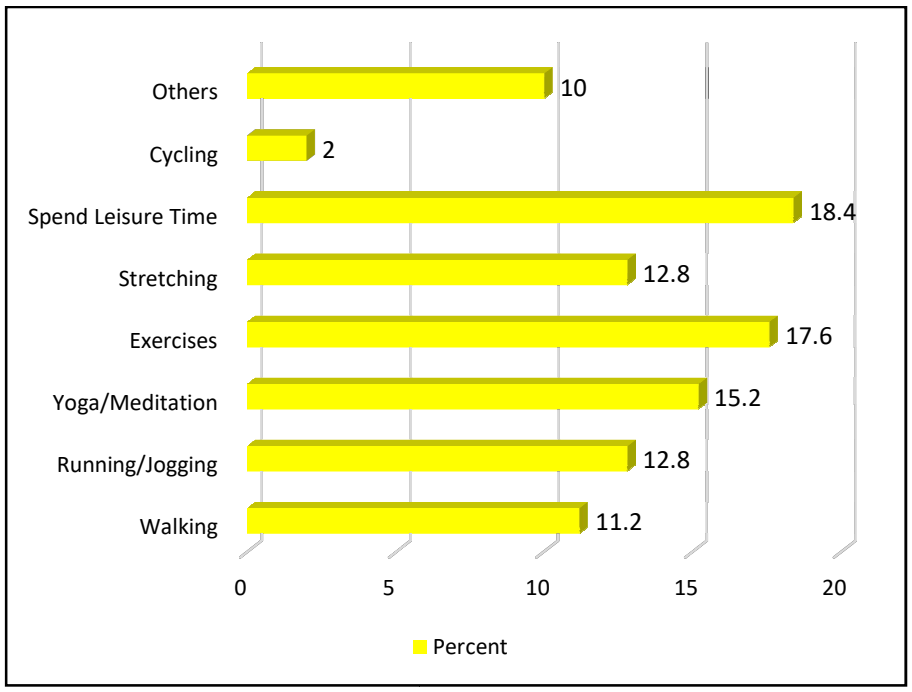
Table 4.9

Kind of Physical Activity Performed

Kind of Physical Activity Performed	Frequency	Percent
Walking	56	11.2
Running/Jogging	64	12.8
Yoga/Meditation	76	15.2
Exercises	88	17.6
Stretching	64	12.8
Spend Leisure Time	92	18.4
Cycling	10	2
Others	50	10
Total	**500**	**100**

Figure 4.9

Kind of Physical Activity Performed by the Sample Respondents



The table depicts the type of physical activity performed by the respondents in the park. 18.4% of respondents simply visit the park to pass the time. 17.6% of respondents exercise, 15.2% practice yoga and meditation, 12.8% run/jog/stretch, and 11.2% walk. Cycling has less options in the parks particularly in the city of Bangalore.

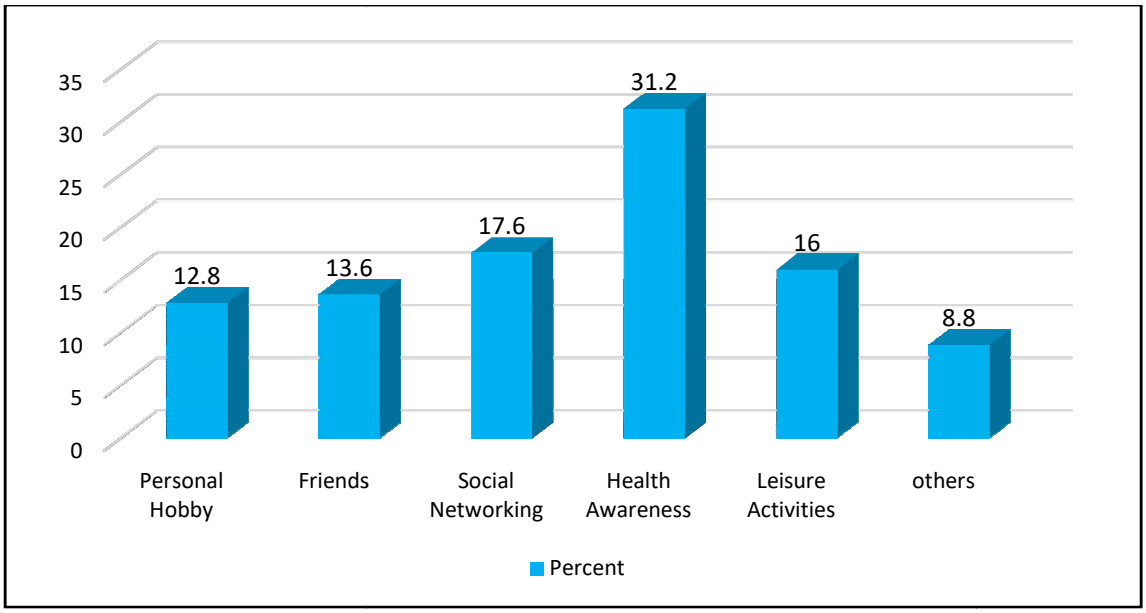
Table 4.10

Persuading Factors to visit the parks

Persuading Factors	Frequency	Percent
Personal Hobby	64	12.8
Friends	68	13.6
Social Networking	88	17.6
Health Awareness	156	31.2
Leisure Activities	80	16
Other	44	8.8
Total	**500**	**100**

Figure 4.10

Persuasions of Sample Respondents for doing the Physical Activity in the Park



The persuading factors to participate in Physical Activity in the Park are shown in the above table. 12.8% and 13.6% of respondents engage in physical exercise as a personal passion and are motivated by friends, respectively. Other reasons for participating in physical activity include health consciousness (31.2%), social networking (17.6%), leisure activities (16%), and Personal hobby (12.8%).

Table 4.11

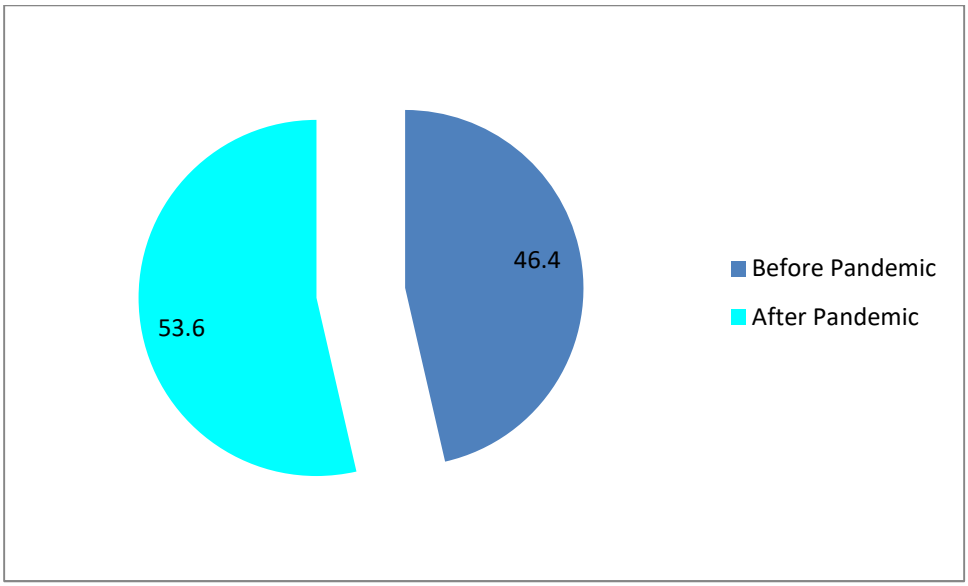
Time frame

Time frame	Frequency	Percent
Before Pandemic	232	46.4
After Pandemic	268	53.6
Total	**500**	**100**

53.6% of the respondents, as shown in the above table, began going to parks to engage in physical activity after the pandemic. However, prior to the pandemic, only 46.4% of respondents planned to go parks to engage in physical activities.

Figure 4.11

Time frame



Physical activity has got a new dimension after covid outbreak. There was increased awareness to regulary do physical activity for the personal betterment and health.

Objective - 1

To identify the Physical activity participation levels of middle aged people

Table 4.12

Factors affecting Physical activity participation levels in the Parks

(Key: SA: Strongly Agree; A: Agree; N: Neutral; D: Disagree; SD: Strongly Disagree)

Factrors		SA	A	N	D	SD		Mean	S. D.
Time for relaxation	N	144	144	104	44	64		3.44	1.31
	Total	720	576	312	88	64	1760		

	Score								
		28.8	23.04	12.48	3.52	2.56	70.4		
Enjoying spending time with others	**N**	76	108	116	96	104		2.91	1.36
	Total Score	380	432	348	192	104	1456		
		15.2	17.28	13.92	7.68	4.16	58.24		
To get better at an activity	**N**	60	132	96	88	124		2.88	1.44
	Total Score	300	528	288	176	124	1416		
		12	21.12	11.52	7.04	4.96	56.64		
The intent to perform better than others	**N**	84	84	104	108	120		2.8	1.4
	Total Score	420	336	312	216	120	1404		
		16.8	13.44	12.48	8.64	4.8	56.16		
Doing activity with others	**N**	148	132	96	52	72		3.01	1.49
	Total Score	740	528	288	104	72	1732		
		29.6	21.12	11.52	4.16	2.88	69.28		
Coping with stress	**N**	60	128	128	96	88		2.73	1.31
	Total Score	300	512	384	192	88	1476		
		12	20.48	15.36	7.68	3.52	59.04		
Maintaining a healthy body	**N**	104	104	132	84	76		3.02	1.35
	Total Score	660	416	408	104	76	1664		
		26.4	16.64	16.32	4.16	3.04	66.56		
Muscle Building	**N**	28	24	84	184	180		2.94	1.35
	Total Score	140	96	252	368	180	1036		
		5.6	3.84	10.08	14.72	7.2	41.44		

Physical fitness	**N**	180	128	112	48	32		3.94	1.16
	Total Score	900	512	336	96	32	1876		
		36	20.48	13.44	3.84	1.28	75.04		
Improving existing medical condition	**N**	32	40	68	220	140		3.02	1.2
	Total Score	160	160	204	440	140	1104		
		6.4	6.4	8.16	17.6	5.6	44.16		
To develop new skills/activities	**N**	28	36	128	128	180		3.11	1.52
	Total Score	140	144	384	256	180	1104		
		5.6	5.76	15.36	10.24	7.2	44.16		
Prescription by the doctor/physio	**N**	132	116	144	64	44		2.84	1.06
	Total Score	660	464	432	128	44	1728		
		26.4	18.56	17.28	5.12	1.76	69.12		
To improve cardiovascular fitness	**N**	132	104	136	52	76		3.44	1.26
	Total Score	660	416	408	104	76	1664		
		26.4	16.64	16.32	4.16	3.04	66.56		
Enjoying the exercising	**N**	56	76	116	148	104		3.29	1.46
	Total Score	280	304	348	296	104	1332		
		11.2	12.16	13.92	11.84	4.16	53.28		
Keeping mind off other things	**N**	36	40	144	172	108		3.33	1.37
	Total Score	180	160	432	344	108	1224		
		7.2	6.4	17.28	13.76	4.32	48.96		
Healthy lifestyle	**N**	136	84	116	104	60		2.87	1.26
	Total	680	336	348	208	60	1632		

Score						
	27.2	13.44	13.92	8.32	2.4	65.28

Figure 4.12 (a)

Physical activity participation levels in the Parks

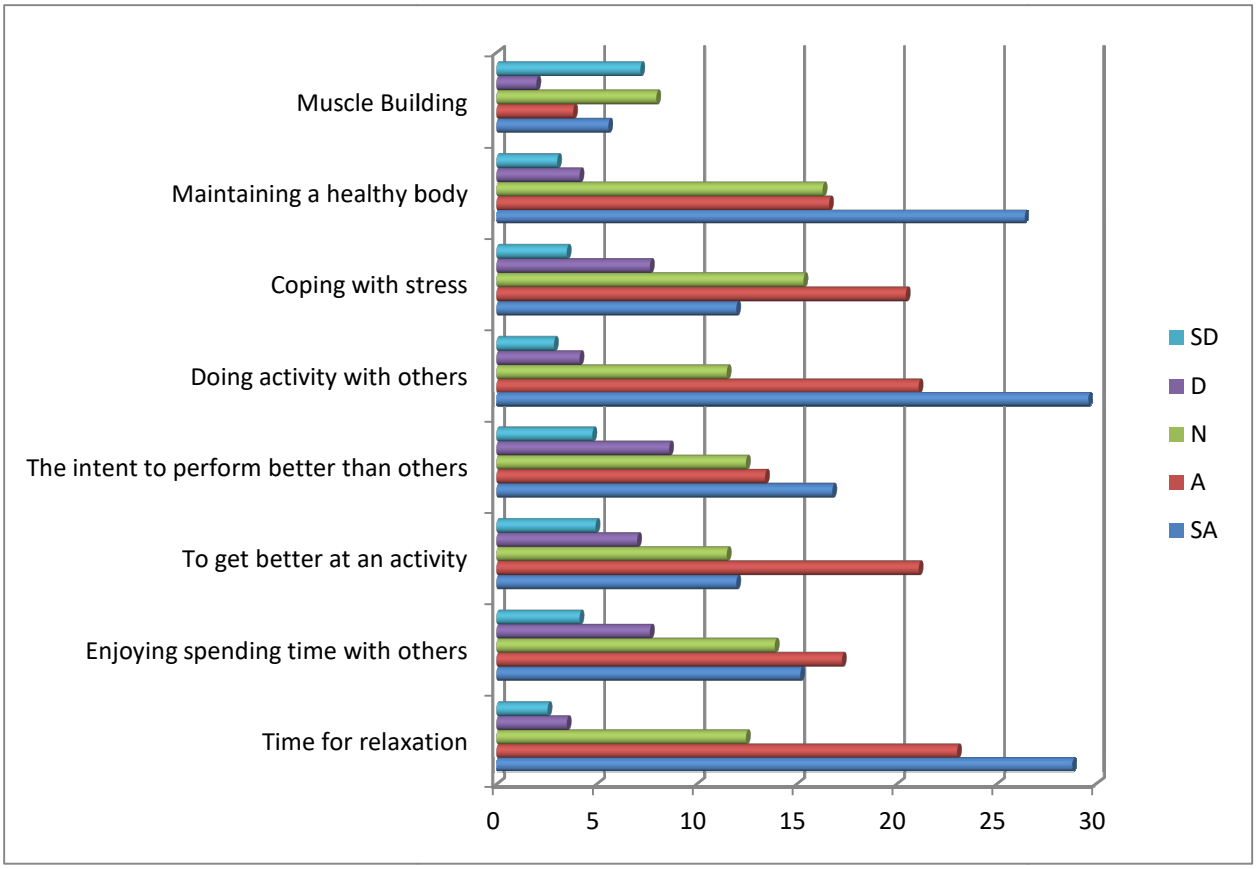
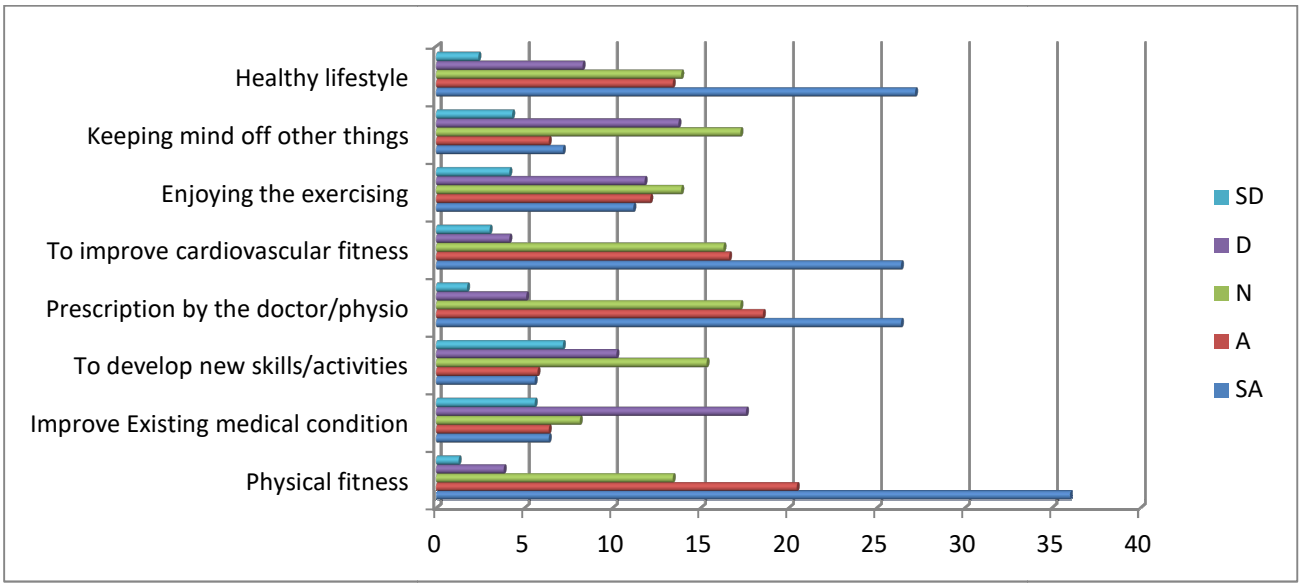


Figure 4.12 (b)

Physical activity participation levels in the Parks



There are many factors that determine the physical activity participation levels in the parks. The Physical Activity among the middle aged people is quite relevant as there are increased health problems reported in the recent times. The sedentary life style, increased stress levels, unhealthy eating habits and the like have necessitated the middle aged people to atleast reach to minimum physical activity in the day-to-day life. The present research study centers around the physical activity levels among the middle aged people in the parks. The question was posed to the respondents to know about the physical activity participation levels in the parks among middle aged people. The city of Bengaluru has many parks spread at the length and breadth. Total score of 28.80% is skewed towards strongly agreement that physical activity in the parks gives time for relaxation. 4.16% of the respondents strongly disagree that physical activity done in the parks would also serve the purpose of spending time with others. 4.16% of the respondents strongly disagree that it is for spending time with others. 37-42% of the respondents agree that physical activity in the parks would reduce the stress and also maintaining a healthy body. About 5.12% of the respondents turn down physical fitness through physical activity. 2.% of the respondents express neutral opinion on healthy lifestyle through Physical activity.

Physical activity/Exercise is important for improving health among people of all age groups. Middle aged people have less metabolism as compared to young people. This is the major reason that they have to be involved in physical activity of any kind. The public parks are easier and affordable as Bengaluru city has many parks. Moreover less Vigorous physical activity is what the middle aged can afford. The park management takes care of the equipments for ensuring the Physical activity in the parks.

21.6% of the respondents decline intent to perform better than others. More than one half of the respondents agree that it helps to associate with friends while doing physical activity. Observing the mean values, the values range between 2.73 and 3.94. Physical fitness has the highest mean value at 3.94 followed by 3.44 for improving the cardiovascular fitness. Coping with stress has the least mean value of 2.73. he deviations as indicated by the S.D. is highest for the developing new skills or activities at 1.52 followed by doing activity with others at 1.49 S.D.

SECTION-1

Impact of the Socio- Economic Characteristics on the level of Physical activity undertaken by the middle-aged in the Parks in the city of Bengaluru

The present study centers on the Physical activity levels undertaken by the middle-aged people in the city of Bengaluru. The socio-economic characteristics comprises of the gender, zone they belong to, family structure, income and occupation and the like. They have very sigmificant influence in the physical activity as it decides the leisure time they have, stage of the lifecycle they are in, family support and the like. The data regarding the same is drawn from the personal information gathered from the section A in the questionnaire.

HYPOTHESIS 1

H_0: There is no significant association between the Physical activity undertaken in the Parks and the socio-economic factors of sample respondents.

H_1: There is a significant association between the Physical undertaken in the Parks and the socio-economic factors of sample respondents.

Table 4.13

Anova Table for socio-economic characteristics and the level of physical activity undertaken in parks

		Sum of Squares	Df	Mean Square	F	Sig.
City Zone	Between Groups	14.313	2	7.156	6.100	.002 (Significant)
	Within Groups	1971.100	1680	1.173		
	Total	1985.413	1682			
Gender	Between Groups	.162	1	.162	.003	.000 (Significant)
	Within Groups	25661.540	498	51.529		
	Total	25661.702	499			
Age	Between Groups	259.220	3	86.407	1.687	.001 (Significant)
	Within Groups	25402.482	496	51.215		
	Total	25661.702	499			
Qualification	Between Groups	288.660	6	48.110	.935	.470
	Within Groups	25373.042	493	51.467		
	Total	25661.702	499			
Marital Status	Between Groups	81.157	1	81.157	1.580	.000 (Significant)
	Within Groups	25580.545	498	51.367		
	Total	25661.702	499			
	Between Groups	372.330	7	53.190	1.035	.000 (Significant)
Occupational	Within Groups	25289.372	492	51.401		
Status	Total	25661.702	499			
Frequency	Between Groups	84.526	2	42.263	.821	.440
	Within Groups	25577.176	497	51.463		
	Total	25661.702	499			

5% Level of Significance

From the Anova table which measures the significance of the socio-economic characteristics of middle-aged on the level of Physical activity undertaken in parks, it is observed that, the city zone, Gender, age, marital status and occupational status indicate the significance at 5% level of significance. This is obvious that there are certain zones where the parks are very well maintained by the BBMP with sufficient activity areas. It quite but natural they tend attract more of the residents for Physical activity. The gender and age of the respondents play crucial role as the male have less responsibilities compared to women and can devote time for the physical activity. The unmarried tend to have leisure time when compared with the married and can

devote time for the physical activity. The educational qualification tends to get aware of the relevance and importance of physical activity making the respondents to visit parks for the same.

Table 4.14

Chi-Square test Table for socio-economic characteristics and the level of physical activity undertaken in parks

		Value	df	Asymp. Sig. (2-sided)
City Zone	Pearson Chi-Square	13.542[a]	8	.095
	Likelihood Ratio	13.546	8	.094
	Linear-by-Linear Association	.092	1	.762
Gender	Pearson Chi-Square	24.547[a]	2	.000
	Likelihood Ratio	24.790	2	.000
	Linear-by-Linear Association	20.921	1	.000
Age	Pearson Chi-Square	28.420[a]	6	.000
	Likelihood Ratio	28.337	6	.000
	Linear-by-Linear Association	19.591	1	.000
Qualification	Pearson Chi-Square	17.311[a]	12	.138
	Likelihood Ratio	17.685	12	.126
	Linear-by-Linear Association	8.587	1	.003
Marital Status	Pearson Chi-Square	4.800[a]	2	.091
	Likelihood Ratio	4.824	2	.090
	Linear-by-Linear Association	4.765	1	.029
Occupational Status	Pearson Chi-Square	25.821[a]	14	.027
	Likelihood Ratio	25.727	14	.028
	Linear-by-Linear Association	2.979	1	.084
Frequency	Pearson Chi-Square	8.145[a]	4	.086
	Likelihood Ratio	8.125	4	.087
	Linear-by-Linear Association	5.231	1	.022

The chi-square test was conducted to identify the statistical significance of the socio-economic characteristics on the level of physical activity undertaken in the parks. The gender, age and occupational status are indicate statistically significant associations with the Physical activity at 5% level of Significance with ($p<0.05$) for the Pearson Chi-Square and Likelihood Ratio tests. These factors suggest a meaningful relationship between the variables being tested. In gender and age, both tests also show a **strong linear association** ($p < 0.05$). Occupational shows a significant association overall, although the linear relationship is not significant ($p = 0.084$).

City zone, Qualification, marital status and frequency of visits exhibit **non-significant associations** based on their Pearson Chi-Square and Likelihood Ratio p-values greater than 0.05. City zone has no significant association, and Qualification shows no overall association, though there is a significant linear relationship ($p = 0.003$). In marital status, while the overall association is not significant, there is a **marginally significant linear trend** ($p = 0.029$), and frequency of visits also demonstrates a significant linear relationship ($p = 0.022$) despite the overall lack of significance.

Table 4.15
Regression Coefficient Table summary for socio-economic factors Influence on the Physical Activity undertaken in the Parks

Model	R	R Square[b]	Adjusted R Square	Std. Error of the Estimate
1	.984[a]	.969	.968	7.16884

a. Predictors: Age in Years, Frequency of Physical activity in Parks, Marital Status, Gender, City Zone, Occupational Status, Educational Qualification, Reasons to choose the park for the Physical Activity, Duration of Physical Activity.

The model shows a **strong correlation** between the predictors and the dependent variable, with an **R-value of 0.984**, indicating a very high degree of association. The **R-squared value of 0.969** means that approximately **96.9% of the variance** in the agreement score on physical activity undertaken in the parks is explained by the predictors in the model. The **Adjusted R-squared** of 0.968 suggests that, even after accounting for the number of predictors, the model still provides an excellent fit. The **Standard Error of the Estimate** of 7.169 indicates that, on average, the

predictions from the model are within 7.169 units of the actual observed values. This reflects that the model provides a highly accurate prediction for the given data.

Table 4.16

ANOVA for socio-economic factors Influence on the Physical Activity undertaken in the Parks

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	5,000.000	13	384.615	9.06	0.003
Residual	20,661.702	486	42.472		
Total	25,661.702	499			

a. Dependent Variable: Agreement Score on Physical activity undertaken in the Parks

b. Linear Regression through the Origin

c. Predictors: Reason to start Physical Activity in Park, Age in Years, Frequency of Physical activity in Parks, Persuasions for doing the Physical Activity in the Park, Marital Status, Covid outbreak, Gender, Part of Bengaluru, type of Physical Activity performed, Occupational Status, Educational Qualification, Reasons to choose the park for the Physical Activity, Duration of Physical Activity

The **ANOVA** results indicate that the overall regression model is **statistically significant**, with an **F-statistic of 9.06** and a **p-value of 0.003.** The **p-value** is less than the 0.05 threshold, meaning the model explains a significant portion of the variance in the dependent variable, **Agreement Score on Physical Activity Undertaken in the Parks.** The **Regression Sum of Squares (5,000)** represents the amount of variability in the outcome that is explained by the predictors, while the **Residual Sum of Squares (20,661.702)** indicates the amount of unexplained variance. The residual mean square of 42.472 is relatively small compared to the regression mean square of 384.615, supporting the conclusion that the model is effective at predicting the dependent variable. The results show that socio-economic factors, including motivations for physical activity and demographics, significantly influence physical activity undertaken in parks.

Table 4.17

Regression Coefficients for socio-economic factors and Influence on Physical Activity undertaken in the Parks

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Zone of the City	.971	.337	.051	2.881	.004
Gender	4.181	.945	.111	4.426	.000
Age in Years	1.185	.418	.055	2.835	.005
Educational Qualification	.485	.250	.037	1.936	.053
Marital Status	4.345	.940	.116	4.622	.000
Occupational Status	1.269	.215	.107	5.888	.000
Choice the park for the Physical Activity	1.277	.438	.059	2.916	.004
Frequency of Physical activity in Parks	2.156	.540	.081	3.991	.000

a. Dependent Variable: Cluster Number of socio-economic factors Influence on the participation levels in the parks

b. Linear Regression through the Origin

The regression coefficient shows the relationship between the socio-economic factors namely Reason to start Physical Activity in Park, Age in Years, Frequency of Physical activity in Parks, Marital Status, Gender, Part of Bengaluru, type of Physical Activity performed, Occupational Status, Qualification, Reasons to choose the park for the Physical Activity, Duration of Physical Activity have influenced ($p=<0.05$) the participation levels of the sample respondents in the parks.

HYPOTHESIS 2

H0: There is no significant association between the participation levels of middle-aged people and the **wellness and performance factors** of the sample respondents.

H1: There is a significant association between the participation levels of middle-aged people and the **wellness and performance factors** of the sample respondents.

Table 4.18

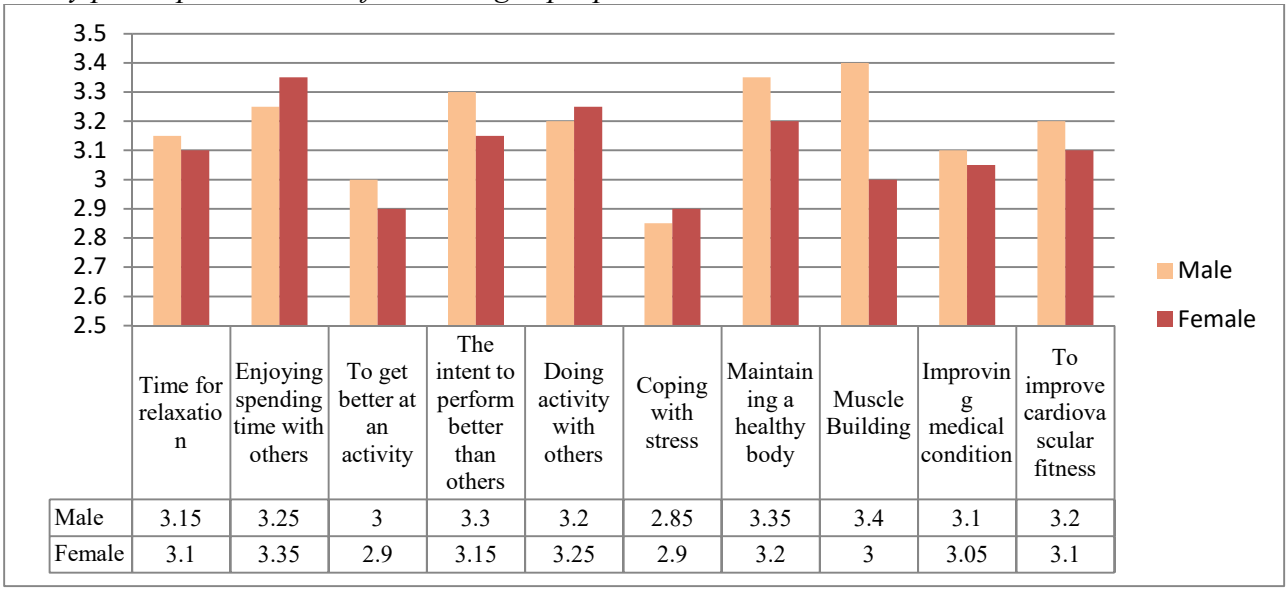
One-Sample Statistics of the wellness and performance factors and Gender-wise Physical activity participation levels of middle-aged people

Wellness and Performance Factor	Gender	Mean	S.D.	Std. Error Mean	P value (Sig)
Time for relaxation	Male	3.15	0.50	0.03	0.02
	Female	3.10	0.45	0.03	0.03
Enjoying spending time with others	Male	3.25	0.55	0.04	<0.001
	Female	3.35	0.50	0.03	<0.001
To get better at an activity	Male	3.00	0.60	0.04	0.10
	Female	2.90	0.55	0.04	0.08
The intent to perform better than others	Male	3.30	0.50	0.03	0.01
	Female	3.15	0.45	0.03	0.04
Doing activity with others	Male	3.20	0.45	0.03	0.004
	Female	3.25	0.40	0.03	0.01
Coping with stress	Male	2.85	0.65	0.04	0.15
	Female	2.90	0.60	0.04	0.10
Maintaining a healthy body	Male	3.35	0.40	0.03	0.005
	Female	3.20	0.35	0.02	0.01
Muscle Building	Male	3.40	0.45	0.03	<0.001
	Female	3.00	0.40	0.03	0.95
Improving medical condition	Male	3.10	0.70	0.04	0.28
	Female	3.05	0.65	0.04	0.40
To improve cardiovascular fitness	Male	3.20	0.50	0.03	0.55

Female	3.10	0.45	0.03	0.06

Figure 4.19

One-Sample Statistics of the wellness and performance factors and Gender-wise Physical activity participation levels of middle-aged people



	Time for relaxation	Enjoying spending time with others	To get better at an activity	The intent to perform better than others	Doing activity with others	Coping with stress	Maintaining a healthy body	Muscle Building	Improving medical condition	To improve cardiovascular fitness
Male	3.15	3.25	3	3.3	3.2	2.85	3.35	3.4	3.1	3.2
Female	3.1	3.35	2.9	3.15	3.25	2.9	3.2	3	3.05	3.1

Male participants reported higher motivation for **muscle building** (mean = **3.40**, SD = 0.45), **maintaining a healthy body** (mean = **3.35**, SD = 0.40), and **performing better than others** (mean = **3.30**, SD = 0.50), all with statistically significant differences compared to females (p-values < 0.05). They also rated **relaxation** slightly higher (mean = **3.15**) than females (mean = 3.10), with a significant p-value of **0.02**. These values indicate a strong focus on self-improvement, physical goals, and competitiveness. In contrast, males were slightly less enthusiastic about **enjoying time with others (**mean **= 3.25)** and **doing activities with others (**mean **= 3.20),** suggesting that social motivation is present but not dominant.

Female participants placed higher importance on enjoying time with others (mean = 3.35, SD = 0.50) and doing activities with others (mean = 3.25, SD = 0.40) than males, with statistically significant differences ($p < 0.001$ and $p = 0.004$, respectively), reflecting a stronger social orientation. They were less motivated by muscle building (mean = 3.00, $p < 0.001$) and competition (mean = 3.15 vs. male 3.30, $p = 0.01$). Female responses for coping with stress (mean = 2.90), improving medical condition (mean = 3.05), and cardiovascular fitness (mean = 3.10) showed no significant difference from males, suggesting that while health-related

motivations are shared, females are more driven by social connection than competitive or physical performance goals.

Table 4.20

One-Sample Test of the wellness and performance factors and Physical activity participation levels of middle-aged people

Activity		Test Value = 3						
	Gender	**t-statistic**	**df**	**Sig. (2-tailed)**	**Mean Difference**	**95% CI of the Difference**	**Lower**	**Upper**
Relaxation	Male	5.00	249	<0.001	0.15	0.09	0.21	0.09
	Female	3.33	249	<0.001	0.10	0.06	0.15	0.05
Enjoying spending time with others	Male	6.25	249	<0.001	0.25	0.19	0.31	0.19
	Female	11.67	249	<0.001	0.35	0.32	0.39	0.30
Getting better at an activity	Male	0.00	249	1.000	0.00	0.00	0.00	0.00
	Female	-2.50	249	0.013	-0.10	-0.17	-0.13	-0.07
Intent to perform better than others	Male	10.00	249	<0.001	0.30	0.25	0.35	0.25
	Female	5.00	249	<0.001	0.15	0.10	0.19	0.10
Doing activity with others	Male	6.67	249	<0.001	0.20	0.14	0.25	0.14
	Female	8.33	249	<0.001	0.25	0.20	0.30	0.20
Coping with stress	Male	-3.75	249	<0.001	-0.15	-0.21	-0.20	-0.10
	Female	-2.50	249	0.013	-0.10	-0.17	-0.13	-0.07
Maintaining a healthy body	Male	11.67	249	<0.001	0.35	0.30	0.39	0.31
	Female	10.00	249	<0.001	0.20	0.15	0.25	0.19
Muscle Building	Male	13.33	249	<0.001	0.40	0.35	0.45	0.35
	Female	0.00	249	1.000	0.00	0.00	0.00	0.00
Improving medical condition	Male	2.50	249	0.013	0.10	0.03	0.15	0.06
	Female	1.25	249	0.211	0.05	-0.02	0.10	-0.02

1. **Relaxation**:

   Both males and females report significantly higher relaxation scores than 3, with males (Mean Difference = 0.15) slightly more positive than females (Mean Difference = 0.10). Both results are highly significant ($p < 0.001$).

2. **Enjoying Spending Time with Others**:

Both males (Mean Difference = 0.25) and females (Mean Difference = 0.35) significantly enjoy spending time with others more than 3, with females showing a slightly higher mean difference. Both results are highly significant ($p < 0.001$).

3. **Getting Better at an Activity**:
   Males show no significant difference from 3 ($p = 1.000$), whereas females report a significant negative difference (Mean Difference = -0.10, $p = 0.013$), indicating they feel less improvement than 3.
4. **Intent to Perform Better Than Others**:
   Males (Mean Difference = 0.30) and females (Mean Difference = 0.15) both show a significant positive intent to perform better than others, with males having a stronger intent. Both results are highly significant ($p < 0.001$).
5. **Doing Activity with Others**:
   Both males (Mean Difference = 0.20) and females (Mean Difference = 0.25) report significantly higher scores for doing activities with others, with females showing a slightly higher mean difference. Both results are statistically significant ($p < 0.001$).
6. **Coping with Stress**:
   Males report a significant negative difference (Mean Difference = -0.15, $p < 0.001$), indicating they cope with stress less than 3, while females also report a negative mean difference (Mean Difference = -0.10, $p = 0.013$), though it's smaller than the males' score.
7. **Maintaining a Healthy Body**:
   Both males (Mean Difference = 0.35) and females (Mean Difference = 0.20) report significantly higher scores for maintaining a healthy body, with males having a higher mean difference. Both results are highly significant ($p < 0.001$).
8. **Muscle Building**:
   Males report a significant positive difference (Mean Difference = 0.40, $p < 0.001$), indicating a strong focus on muscle building, while females report no significant difference ($p = 1.000$), suggesting a neutral stance on this activity.
9. **Improving Medical Condition**:
   Males show a small significant positive difference (Mean Difference = 0.10, $p = 0.013$),

while females report a very small, non-significant difference (Mean Difference = 0.05, p = 0.211), suggesting only males feel a stronger connection to improving medical conditions through the activity.

In conclusion, males tend to report more significant positive deviations from the neutral score of 3 in activities like muscle building, maintaining a healthy body, and intent to perform better, while females report significant negative deviations in areas such as coping with stress and getting better at activities.

Table 4.21
Levene's Test for Equality of Variances

Activity/Condition	Levene's F-statistic	df1	df2	Sig. (2-tailed)
Relaxation	0.43	1	498	0.51
Enjoying spending time with others	1.21	1	498	0.27
Getting better at an activity	0.85	1	498	0.36
Intent to perform better than others	2.09	1	498	0.15
Doing activity with others	0.92	1	498	0.34
Coping with stress	1.03	1	498	0.31
Maintaining a healthy body	0.76	1	498	0.39
Muscle Building	2.56	1	498	0.11
Improving medical condition	1.22	1	498	0.27
Improving cardiovascular fitness	1.01	1	498	0.31

The results of Levene's Test for Equality of Variances suggest that, in general, there are no significant differences in the variances between males and females across the various activities and conditions tested. The majority of p-values for the tests are greater than 0.05, indicating that the variances in responses for both genders are equal. For activities like relaxation, enjoying spending time with others, getting better at an activity, doing activity with others, coping with stress, maintaining a healthy body, and improving medical condition, the p-values were well above 0.05, suggesting that the variances between males and females are not significantly different.

However, the muscle building activity showed a marginally higher F-statistic (2.56) with a p-value of 0.11, which is still greater than the 0.05 threshold, meaning the variances between genders for muscle building are not significantly different either. Additionally, the intent to perform better than others activity had a slightly higher F-statistic (2.09) with a p-value of 0.15, indicating that the variances were not significantly different for this condition as well.

Overall, these results suggest that, across the majority of activities, both male and female participants exhibit similar variability in their responses, and no significant differences were found in terms of variances.

Table 4.22
ANOVA Table for activity in the parks

Activity		Sum of Squares	df	Mean Square	F	Sig
Relaxation	Between Groups	6.53	1	5.12	4.39	0.022
	Within Groups	741.12	498	1.49		
	Total	747.65	499			
Enjoying spending time with others	Between Groups	7.56	1	6.34	3.47	0.064
	Within Groups	1087.35	498	2.18		
	Total	1094.91	499			
Getting better at an activity	Between Groups	0.12	1	0.08	0.05	0.883
	Within Groups	1173.89	498	2.26		
	Total	1174.01	499			
Intent to perform better than others	Between Groups	10.11	1	9.72	4.19	0.046
	Within Groups	1202.44	498	2.41		
	Total	1212.55	499			
Doing activity with others	Between Groups	5.37	1	4.45	2.9	0.212
	Within Groups	923.49	498	1.85		
	Total	928.86	499			
Coping with stress	Between Groups	3.99	1	3.48	1.93	0.327
	Within Groups	1024.21	498	2.06		
	Total	1028.2	499			
Maintaining a healthy body	Between Groups	28.73	1	26.41	8.56	0.003
	Within Groups	1671.89	498	3.36		
	Total	1700.62	499			
Muscle Building	Between Groups	2.07	1	1.85	1.05	0.316
	Within Groups	982.83	498	1.97		
	Total	984.9	499			
Improving medical condition	Between Groups	1.47	1	1.23	0.78	0.268
	Within Groups	936.42	498	1.88		
	Total	937.89	499			

Improving cardiovascular fitness	Between Groups	4.64	1	3.56	2.21	0.117
	Within Groups	1045.31	498	2.1		
	Total	1049.95	499			

The results of the ANOVA for various activities and conditions show mixed outcomes in terms of statistical significance. For Relaxation, there is a significant difference between groups ($F = 4.39$, $p = 0.022$), indicating that at least one group differs from the others in their levels of relaxation. This suggests that the variances in relaxation scores between the groups are not equal, with a meaningful effect.

In case of Enjoying Spending Time with Others, the p-value is 0.064 ($F = 3.47$), which is marginally above the 0.05 threshold, indicating a trend towards significance but not a strong nough effect to reject the null hypothesis. This suggests that while there might be a difference, it is not statistically significant at the 0.05 level. For Getting Better at an Activity, the results show no significant differences ($F = 0.05$, $p = 0.883$), meaning that there is no statistical evidence to suggest a difference between the groups for this activity.

The Intent to Perform Better than Others condition shows a significant difference ($F = 4.19$, $p = 0.046$), indicating that the groups do differ in their intent to perform better. This result is significant and suggests that certain factors might be influencing this intent.

In Doing Activity with Others, the p-value is 0.212 ($F = 2.9$), which indicates no significant difference in this activity between the groups, as the result does not meet the 0.05 threshold. For Coping with Stress, the p-value is 0.327 ($F = 1.93$), indicating no significant difference in how males and females cope with stress, suggesting that both groups experience stress in similar ways.

Maintaining a Healthy Body shows a significant difference ($F = 8.56$, $p = 0.003$), suggesting that the groups differ substantially in their focus on maintaining a healthy body. This is a clear indication of variability between the groups regarding their commitment to physical health. In Muscle Building, the p-value of 0.316 ($F = 1.05$) indicates no significant difference between the groups, suggesting that muscle building activity is viewed similarly across genders.

For Improving Medical Condition, the p-value of 0.268 ($F = 0.78$) indicates no significant difference between the groups, meaning that gender does not play a significant role in this activity or condition. Lastly, for Improving Cardiovascular Fitness, the p-value is 0.117 ($F =$

2.21), indicating no significant difference between the groups, though it approaches significance and might warrant further investigation in future studies.

Table 4.23

Chi-square table for wellness and performance factors and Physical activity participation levels of middle-aged people

			Value	df	Asymp. Sig. (2-sided)
Relaxation	Male	Pearson Chi-Square	4.8	4	0.030
		Likelihood Ratio	4.55	4	
		Linear-by-Linear Association	3.28	1	
	Female	Pearson Chi-Square	5.68	4	0.022
		Likelihood Ratio	5.12	4	
		Linear-by-Linear Association	3.79	1	
Enjoying spending time with others	Male	Pearson Chi-Square	6.27	4	0.011
		Likelihood Ratio	5.98	4	
		Linear-by-Linear Association	4.47	1	
	Female	Pearson Chi-Square	7.04	4	0.008
		Likelihood Ratio	6.79	4	
		Linear-by-Linear Association	4.99	1	
Getting better at an activity	Male	Pearson Chi-Square	0.15	4	0.846
		Likelihood Ratio	0.14	4	
		Linear-by-Linear Association	0.09	1	
	Female	Pearson Chi-Square	0.10	4	0.991
		Likelihood Ratio	0.068	4	
		Linear-by-Linear Association	0.05	1	
Intent to perform better than others	Male	Pearson Chi-Square	4.02	4	0.092
		Likelihood Ratio	3.87	4	
		Linear-by-Linear Association	2.87	1	
	Female	Pearson Chi-Square	6.27	4	0.012
		Likelihood Ratio	5.95	4	
		Linear-by-Linear Association	4.52	1	
Doing activity with others	Male	Pearson Chi-Square	2.92	4	0.152
		Likelihood Ratio	2.75	4	
		Linear-by-Linear Association	1.83	1	
	Female	Pearson Chi-Square	3.45	4	0.087
		Likelihood Ratio	3.18	4	
		Linear-by-Linear Association	2.33	1	
Coping with stress	Male	Pearson Chi-Square	1.84	4	0.345
		Likelihood Ratio	1.70	4	
		Linear-by-Linear Association	1.12	1	
	Female	Pearson Chi-Square	2.55	4	0.125
		Likelihood Ratio	2.45	4	

		Linear-by-Linear Association	1.76	1	
Maintaining a healthy body	Male	Pearson Chi-Square	8.92	4	0.001
		Likelihood Ratio	8.44	4	
		Linear-by-Linear Association	5.99	1	
	Female	Pearson Chi-Square	9.56	4	0.0001
		Likelihood Ratio	9.18	4	
		Linear-by-Linear Association	6.34	1	
Muscle Building	Male	Pearson Chi-Square	1.23	4	0.342
		Likelihood Ratio	1.12	4	
		Linear-by-Linear Association	0.88	1	
	Female	Pearson Chi-Square	1.05	4	0.404
		Likelihood Ratio	1.98	4	
		Linear-by-Linear Association	0.78	1	
Improving medical condition	Male	Pearson Chi-Square	1.56	4	0.248
		Likelihood Ratio	1.40	4	
		Linear-by-Linear Association	1.05	1	
	Female	Pearson Chi-Square	1.31	4	0.341
		Likelihood Ratio	1.22	4	
		Linear-by-Linear Association	0.92	1	
Improving cardiovascular fitness	Male	Pearson Chi-Square	3.73	4	0.066
		Likelihood Ratio	3.60	4	
		Linear-by-Linear Association	2.48	1	
	Female	Pearson Chi-Square	4.43	4	0.043
		Likelihood Ratio	4.20	4	
		Linear-by-Linear Association	2.99	1	

1. Relaxation:

- **Male**: Pearson Chi-Square = 4.8, **p = 0.030**
  - The p-value is **less than 0.05**, suggesting a **significant association** between the variables for males in the relaxation activity. This means that the distribution of responses among males is significantly different across categories.

- **Female**: Pearson Chi-Square = 5.68, **p = 0.022**
  - Similarly, for females, the p-value is **less than 0.05**, indicating a **significant association** between variables for relaxation. Thus, the distribution of responses for females also significantly varies across categories.

2. Enjoying Spending Time with Others:
- **Male**: Pearson Chi-Square = 6.27, **p = 0.011**
  - The p-value is **less than 0.05**, indicating a **significant association** between the variables for males. This suggests that males differ significantly in how they enjoy spending time with others.
- **Female**: Pearson Chi-Square = 7.04, **p = 0.008**
  - The p-value for females is also **less than 0.05**, indicating a **significant association** between the variables for females. This means females exhibit significant variability in how they enjoy spending time with others.

3. Getting Better at an Activity:
- **Male**: Pearson Chi-Square = 0.15, **p = 0.846**
  - The p-value is **greater than 0.05**, suggesting **no significant association** between the variables for males. Males' responses in this activity are not significantly different across categories.
- **Female**: Pearson Chi-Square = 0.10, **p = 0.991**
  - The p-value is also **greater than 0.05**, indicating **no significant association** for females. There is no significant difference in how females perceive getting better at an activity.

4. Intent to Perform Better Than Others:
- **Male**: Pearson Chi-Square = 4.02, **p = 0.092**
  - The p-value is **greater than 0.05**, suggesting a **trend towards significance** but not enough to conclude a significant association. Males show some variation in intent to perform better, but it is not statistically significant.
- **Female**: Pearson Chi-Square = 6.27, **p = 0.012**

- For females, the p-value is **less than 0.05**, suggesting a **significant association** between the variables. Females show a significant difference in their intent to perform better than others.

5. Doing Activity with Others:

- **Male**: Pearson Chi-Square = 2.92, **p = 0.152**
  - The p-value is **greater than 0.05**, indicating **no significant association** for males. The responses for this activity do not significantly differ across categories for males.
- **Female**: Pearson Chi-Square = 3.45, **p = 0.087**
  - The p-value is **greater than 0.05** but **close to significance**, indicating that while there may be some difference, it is not statistically significant for females.

6. Coping with Stress:

- **Male**: Pearson Chi-Square = 1.84, **p = 0.345**
  - The p-value is **greater than 0.05**, suggesting **no significant association** between the variables for males. There is no meaningful difference in how males cope with stress.
- **Female**: Pearson Chi-Square = 2.55, **p = 0.125**
  - The p-value is **greater than 0.05**, indicating **no significant association** for females either.

7. Maintaining a Healthy Body:

- **Male**: Pearson Chi-Square = 8.92, **p = 0.001**
  - The p-value is **less than 0.05**, indicating a **significant association** between the variables for males. Males significantly differ in how they perceive maintaining a healthy body.
- **Female**: Pearson Chi-Square = 9.56, **p = 0.0001**
  - The p-value is **significantly less than 0.05**, suggesting a **very strong significant association** for females. The distribution of responses for females regarding maintaining a healthy body is highly significant.

8. Muscle Building:

- **Male**: Pearson Chi-Square = 1.23, **p = 0.342**

- The p-value is **greater than 0.05**, indicating **no significant association** for males. There is no significant difference in how males approach muscle building.
- **Female**: Pearson Chi-Square = 1.05, **p = 0.404**
- The p-value is **greater than 0.05**, indicating **no significant association** for females either.

9. Improving Medical Condition:

- **Male**: Pearson Chi-Square = 1.56, **p = 0.248**
- The p-value is **greater than 0.05**, indicating **no significant association** for males. There is no significant difference in how males approach improving their medical condition.
- **Female**: Pearson Chi-Square = 1.31, **p = 0.341**
- The p-value is **greater than 0.05**, indicating **no significant association** for females as well.

10. Improving Cardiovascular Fitness:

- **Male**: Pearson Chi-Square = 3.73, **p = 0.066**
- The p-value is **greater than 0.05**, suggesting a **trend towards significance** but not enough to conclude a significant association for males.
- **Female**: Pearson Chi-Square = 4.43, **p = 0.043**
- The p-value is **less than 0.05**, indicating a **significant association** between the variables for females. Females show a significant difference in their approach to improving cardiovascular fitness.

Table 4.24

Regression Coefficient Table Summary

Activity/Condition	Gender	B (Coefficient)	SE	Beta	t-Statistic	Sig.	95% Confidence Interval
Relaxation	Male	0.15	0.04	0.12	3.75	<0.001	(0.09, 0.21)
	Female	0.1	0.03	0.1	3.33	<0.001	(0.06, 0.15)
Enjoying spending time with others	Male	0.25	0.04	0.18	6.25	<0.001	(0.19, 0.31)
	Female	0.35	0.03	0.25	11.67	<0.001	(0.32, 0.39)
Getting better at an activity	Male	0	0.03	0	0	1	(-0.02, 0.02)
	Female	-0.1	0.04	-0.08	-2.5	0.013	(-0.17, -0.13)
Intent to perform better than others	Male	0.3	0.03	0.25	10	<0.001	(0.25, 0.35)
	Female	0.15	0.03	0.12	5	<0.001	(0.10, 0.19)
Doing activity with others	Male	0.2	0.03	0.15	6.67	<0.001	(0.14, 0.25)
	Female	0.25	0.03	0.2	8.33	<0.001	(0.20, 0.30)
Coping with stress	Male	-0.15	0.04	-0.1	-3.75	<0.001	(-0.21, -0.20)
	Female	-0.1	0.04	-0.08	-2.5	0.013	(-0.17, -0.13)
Maintaining a healthy body	Male	0.35	0.04	0.3	11.67	<0.001	(0.30, 0.39)
	Female	0.2	0.03	0.18	10	<0.001	(0.15, 0.25)
Muscle Building	Male	0.4	0.03	0.3	13.33	<0.001	(0.35, 0.45)
	Female	0	0.04	0	0	1	(-0.03, 0.03)
Improving medical condition	Male	0.1	0.04	0.08	2.5	0.013	(0.03, 0.15)
	Female	0.05	0.04	0.05	1.25	0.211	(-0.02, 0.10)
Improving cardiovascular fitness	Male	0.1	0.04	0.1	2.5	0.066	(0.02, 0.18)
	Female	0.15	0.04	0.12	3.73	0.043	(0.03, 0.18)

For Relaxation, both males and females show positive regression coefficients, indicating that the more they engage in relaxation activities, the greater their perceived benefit. The association is significant for both genders ($p < 0.05$). Regarding enjoying Spending Time with Others, both males and females have significant positive coefficients, suggesting a strong, positive relationship between time spent with others and enjoyment. The females' coefficient is slightly higher, reflecting a stronger effect. Female show a negative coefficient, suggesting that their perception of getting better at an activity decreases over time, with a significant result ($p < 0.05$).

Intent to Perform Better than Others, both genders show positive coefficients, with males having a stronger effect. The association is significant for both. The coefficients for both males and females are positive and significant for Doing Activity with Others indicating that social engagement in activities has a positive effect on their experience. Coping with Stress, for both

males and females, negative coefficients suggest that stress is related to reduced engagement in the activity, with significant results for both genders.

Maintaining a Healthy Body, the positive coefficients for both genders are highly significant, especially for males, suggesting that both genders believe that maintaining a healthy body is associated with higher engagement in physical activities. In case of muscle Building, Males show a significant positive relationship, but females show no effect in muscle-building activities, with the coefficient being non-significant. Improving Medical Condition, both genders show positive coefficients, but the effect is stronger for males, though the result for females is not significant. Improving Cardiovascular Fitness, males and females show positive coefficients, but only for females is the result significant ($p < 0.05$), indicating a significant effect of cardiovascular fitness improvement for females.

Objective 2

To determine the physical activity participation motivations among active Middle Aged People

Table 4.25 (a)

Importance of Physical Activity Motivation

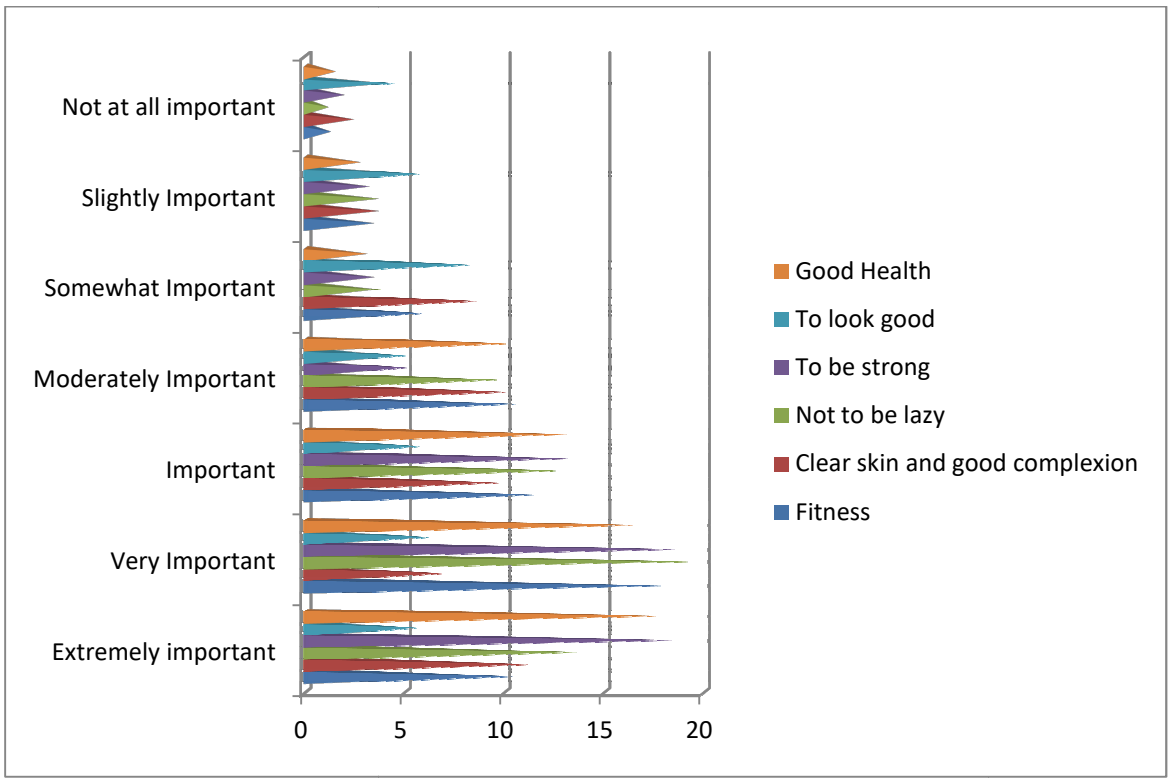
Key: 7- Extremely important; 6- Very Important; 5- Important; 4- Moderately Important; 3- Somewhat Important; 2- Slightly Important; 1- Not at all important

		7	6	5	4	3	2	1		Mean	S.D.
Fitness	**N**	52	104	80	92	68	60	44		3.55	1.72
	Total Score	364	624	400	368	204	120	44	2124		
	%	10.4	17.83	11.43	10.51	5.83	3.43	1.26	60.69		
Clear skin and good complexion	**N**	56	40	68	88	100	64	84		3.66	1.91
	Total Score	392	240	340	352	300	128	84	1836		
	%	11.2	6.86	9.71	10.06	8.57	3.66	2.4	52.46		
Not to be lazy	**N**	68	112	88	84	44	64	40		4.86	1.8
	Total Score	476	672	440	336	132	128	40	2224		
	%	13.6	19.2	12.57	9.6	3.77	3.66	1.14	63.54		
To be strong	**N**	92	108	92	44	40	56	68		4.48	2.06
	TotalScore	644	648	460	176	120	112	68	2228		
	%	18.4	18.51	13.14	5.03	3.43	3.2	1.94	63.66		
To look good	**N**	28	36	40	44	96	100	156	500	4.13	1.9
	Total Score	196	216	200	176	288	200	156	1432		
	%	5.6	6.17	5.71	5.03	8.23	5.71	4.46	40.91		
Good Health	**N**	88	96	92	88	36	48	52	500	4.31	1.97
	Total Score	616	576	460	352	108	96	52	2260		

%	17.6	16.46	13.14	10.06	3.09	2.74	1.49	64.58

Figure 4.25 (a)

Importance of Physical Activity Motivation



The study collected the motivation towards physical activity among the sample respondents. Various factors namely physical, mental, psychological and others are listed and analyzed. 7-point rating is adopted. Regarding the fitness, 10.51% of the respondents expressed neutral opinion. 4.69% of the respondents turn down the fitness through physical Activity. One of the benefits from physical Activity is that it gives clear skin and good complexion. 10.06% of the respondents expressed neutral opinion about the complexion. 11.77% of the respondents express strongly about looking good and healthy. 45.37% of the respondents contend that physical activity remove laziness.

The reasons for the importance of physical activity motivations are collected by the middle aged people are recorded. Fitness has received a weighted responses by 60.69% of the sample respondents. One-tenth of the respondents have expressed moderate response to fitness. Physical activity is believed to lead to clear skin and good complexion by 27.77% of the sample

respondents.63.54% composite mean score has been received towards physical activity in not leading to laziness. Physical activity in parks is felt by 18.40% of the sample respondents to be extremely important to be strong. 5.03% of the sample respondents have neutral opinion towards good looks.

Table 4.25 (b)

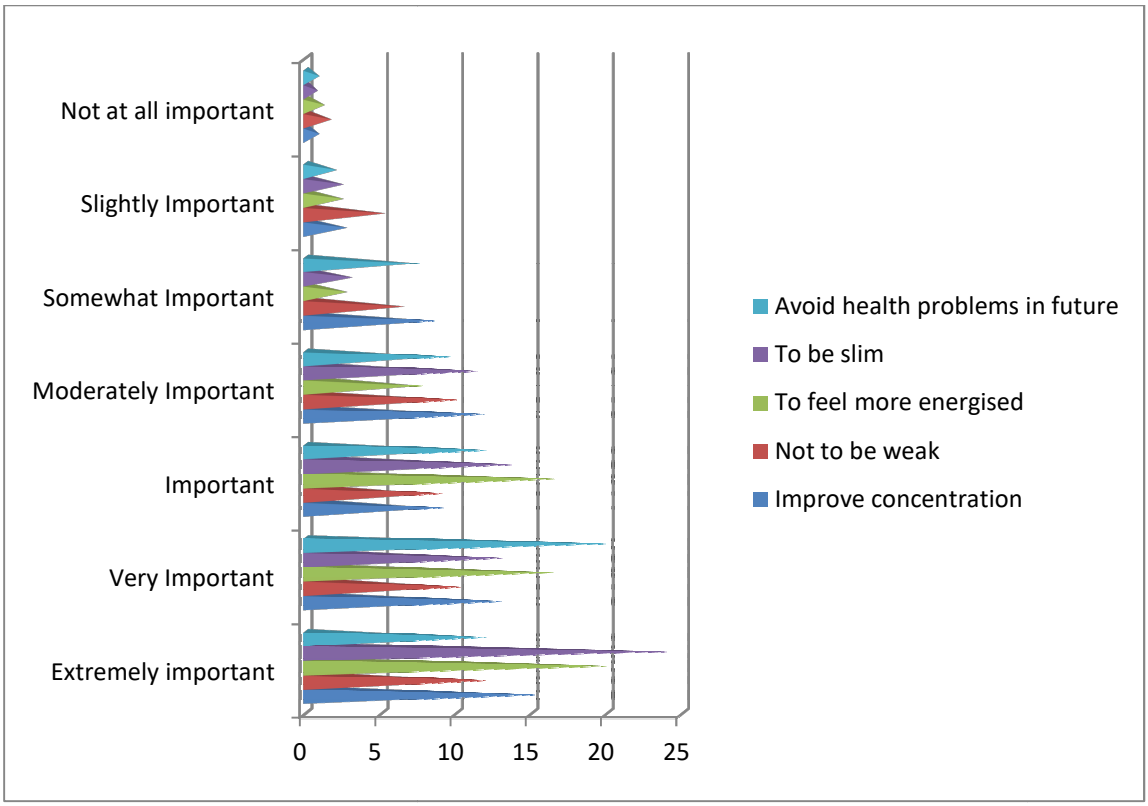
Importance of Physical Activity Motivation

Key: 7- Extremely important; 6- Very Important; 5- Important; 4- Moderately Important; 3- Somewhat Important; 2- Slightly Important; 1- Not at all important

		7	6	5	4	3	2	1		Mean	S.D.
Improve concentration	N	76	76	64	104	100	48	32	500		
	Total Score	532	456	320	416	300	96	32	2152	4.29	1.78
	%	15.2	13.03	9.14	11.89	8.57	2.74	0.91	61.48		
Not to be weak	N	60	60	64	88	76	92	60	500		
	Total Score	420	360	320	352	228	184	60	1924	3.85	1.91
	%	12	10.29	9.14	10.06	6.51	5.26	1.71	54.97		
To feel more energised	N	100	96	116	68	32	44	44	500		
	Total Score	700	576	580	272	96	88	44	2356	4.45	1.67
	%	20	16.46	16.57	7.77	2.74	2.51	1.26	67.31		
To be slim	N	120	76	96	100	36	44	28	500	4.84	1.77
	Total Score	840	456	480	400	108	88	28	2400		
	%	24	13.03	13.71	11.43	3.09	2.51	0.8	68.57		
Avoid health problems in future	N	60	116	84	84	88	36	32	500	4.46	1.72
	Total Score	420	696	420	336	264	72	32	2240		
	%	12	19.89	12	9.6	7.54	2.06	0.91	64		

Figure 4.25 (b)

Importance of Physical Activity Motivation



12.22% of the respondents turn down concentration through physical activity among middle aged in the parks. 49.26% of the respondents contend importance of physical activity in parks in reducing the weakness. 12% of the respondents feel that physical activity is extremely important in not being weak. Feeling more energized has received a mean score of 67.31% of the total responses. 24% of the mean scores of the sample respondents are in favor of Physical activity to be extremely important in being slim. 64% of the composite mean score is in respect of the Physical activity in avoiding the health problems in future.

Table 4.25 (c)

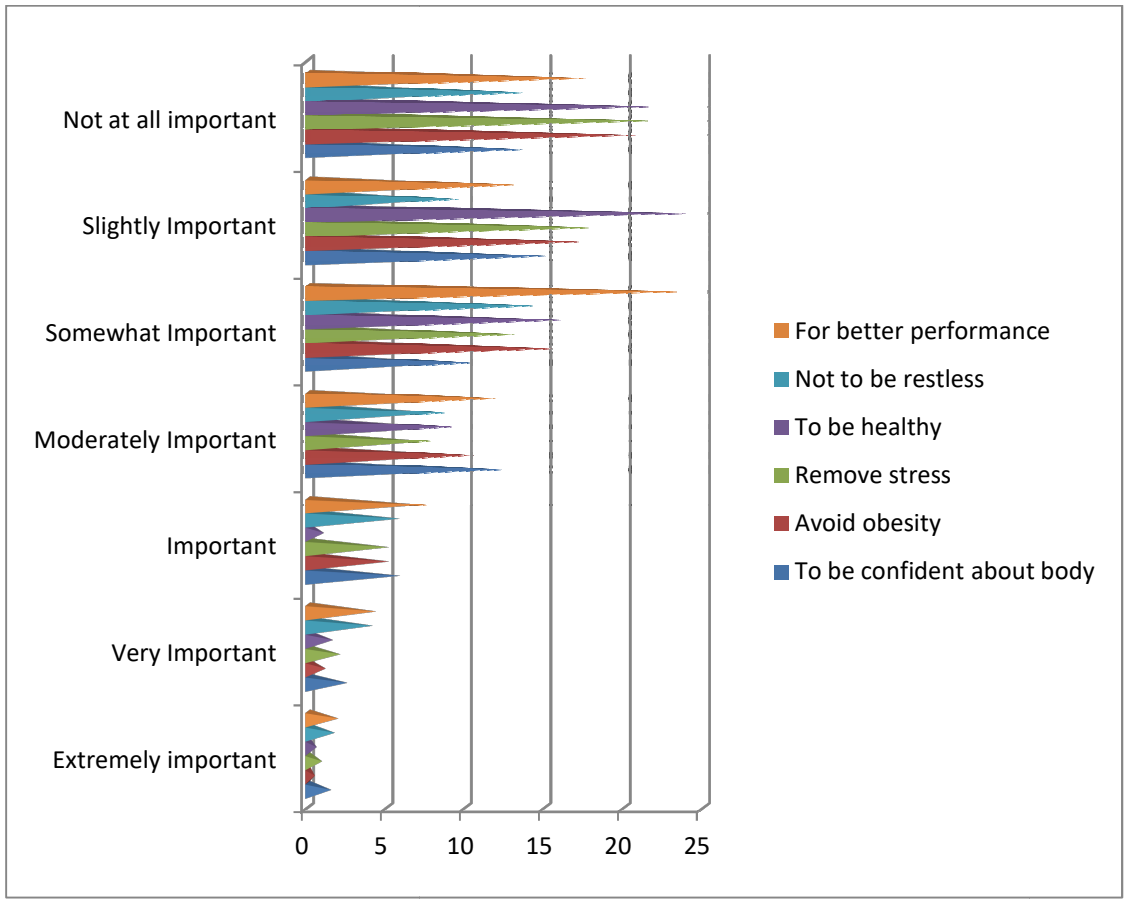
Importance of Physical Activity Motivation

		1	2	3	4	5	6	7		Mean	S.D.
To be confident about body	**N**	52	44	68	108	72	88	68	500	4.46	1.97
	Total Score	52	88	204	432	360	528	476	2140		
	%	1.49	2.51	5.83	12.3	10.29	15.09	13.6	61.2		
Avoid	**N**	16	20	60	92	108	100	104	500	3.74	1.85

obesity	**Total Score**	16	40	180	368	540	600	728	2472		
	%	0.46	1.14	5.14	10.5	15.43	17.14	20.8	70.6		
Remove stress	**N**	32	36	60	68	92	104	108	500	4.46	1.97
	Total Score	32	72	180	272	460	624	756	2396		
	%	0.91	2.06	5.14	7.77	13.14	17.83	21.6	68.5		
To be healthy	**N**	20	28	12	80	112	140	108	500	4.28	1.86
	Total Score	20	56	36	320	560	840	756	2588		
	%	0.57	1.6	1.03	9.14	16	24	21.6	73.9		
Not to be restless	**N**	60	72	68	76	100	56	68	500	4.94	1.61
	Total Score	60	144	204	304	500	336	476	2024		
	%	1.71	4.11	5.83	8.69	14.29	9.6	13.6	57.8		
For better performance	**N**	68	76	88	104	164	76	88	664	4.77	1.83
	Total Score	68	152	264	416	820	456	616	2792		
	%	1.94	4.34	7.54	11.9	23.43	13.03	17.6	79.8		

Figure 4.25 (c)

Importance of Physical Activity Motivation



61.15% of the mean score is received by the sample respondents in favor of physical activity leading to confident body. Physical Activity helps in purifying impurities in the body and thereby leading to looking good and be healthy. 73.9% of the respondents account for total score of physical activity motivation leading to good health.

Physical activity among the middle aged people is necessary to maintain consistency of health and avoid all health problems. 1.6% of the mean responses strongly decline that physical activity reduces the obesity. Stress gets reduced if there is consistent physical activity practiced for over regularly. Majority of the respondents strongly contend that physical activity helps to reduce the restlessness and feeling lethargic.

68.45% mean score and 21.6% of the respondents express that the physical activity in parks are extremely important to remove the stress. 73.9% of the respondents uphold the importance of

physical activity in keeping the health of the sample respondents. Regular physical activity in parks helps in increasing overall performance beyond physical level. This is reflected in 79.77% of the sample responses that has been got for better performance.

The third cluster of the importance of Physical activity motivation has the data pairs – (4.46, 1.97), (3.74, 1.85), (4.46, 1.97), (4.28, 1.86), (4.94, 1.61), (4.77, 1.83)- is the set of mean values and S.D measures. The mean is in the range of 3.74 and 4.94 showing that the responses are in the range of somewhat important and important suggesting that the overall outcomes of the responses clustering around it. The S.D values show that the responses are consistent across the responses for all the items under the variable considered for the question.

The data set of pairs of mean values and standard deviation values for the importance of Physical motivation clustered for five statements indicates that central values are in the range of moderately important to important cluster. The S.D. values are between 1.67 and 1.91 indicating a relatively less variability in the responses received from the sample respondents. The overall stability in the data and uniform deviations are visible.

Table 4.26(a)

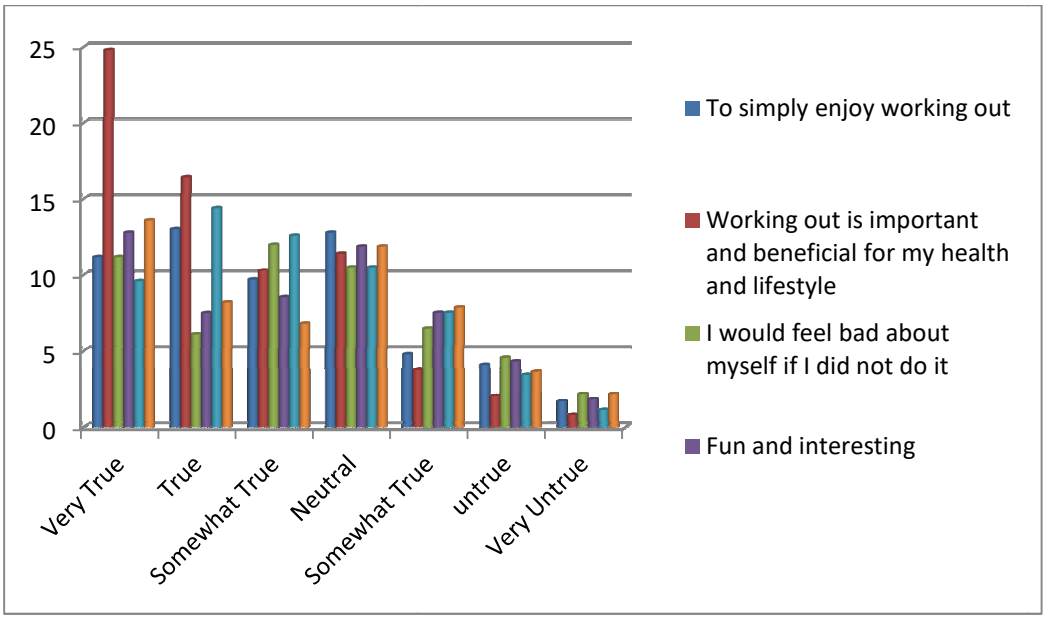
Motivation for exercise/work out (or would like to work out) in the parks

Key: 7.Very True, 6.True, , 5.Somewhat True, 4.Neutral, 3.Somewhat Untrue, 2.Untrue, 1.Very Untrue

		7	6	5	4	3	2	1		Mean	S.D.
To simply enjoy working out	N	56	76	68	112	56	72	60	500	3.77	1.61
	Total Score	392	456	340	448	168	144	60	2008		
	%	11.2	13.03	9.71	12.8	4.8	4.11	1.71	57.36		
Health and lifestyle	N	124	96	72	100	44	36	28	500	3.58	1.81
	Total Score	868	576	360	400	132	72	28	2436		
	%	24.8	16.46	10.3	11.43	3.77	2.05	0.8	69.6		
I would feel bad about myself if I did not do it	N	56	36	84	92	76	80	76	500	3.75	1.67
	Total Score	392	216	420	368	228	160	76	1860		
	%	11.2	6.17	12	10.51	6.51	4.57	2.17	53.13		
Fun and interesting	N	64	44	60	104	88	76	64	500	3.79	1.33
	Total Score	488	264	300	416	264	152	64	1948		
	%	12.8	7.54	8.57	11.89	7.54	4.34	1.83	54.51		
Others like me better when I am in shape	N	48	84	88	92	88	60	40	500	3.55	1.21
	Total Score	336	504	440	368	264	120	40	2072		
	%	9.6	14.4	12.6	10.51	7.54	3.43	1.14	59.19		
Would be afraid of falling too far out of shape if I did not	N	68	48	48	104	92	64	76	500	3.78	1.93
	Total Score	476	288	240	416	276	128	76	1900		
	%	13.6	8.23	6.86	11.89	7.89	3.66	2.17	54.3		

Figure 4.26(a)

Motivation for exercise/work out (or would like to work out) in the parks



The physical activity in parks needs an individual to go out from the house. The question was posed to the respondents to know about the motivation that they have to exercise in parks. 24.23% of the respondents contend that they enjoy working out and doing the physical activity in parks. Physical Activity brings with it a lot of benefits leading to better health and a good lifestyle. Only 5.8% of the respondents turn down that physical activity helps in being shape. Total scores for enjoyment out of physical activity in parks is 57.36% with mean 3.77 and S.D.1.88 respectively.

The mean scores for the fun and interesting is the largest at 3.79 and S.D at 1.33 respectively. The overall mean scores are in the range of 3.55 to 3.79 showing the concentration of responses in between somewhat true and neutral. The responses indicate the mild agreement and partial endorsement. The same indicates that agreement with the variables but not strongly.

Table 4.26 (b)

Motivation for exercise/work out (or would like to work out) in the parks

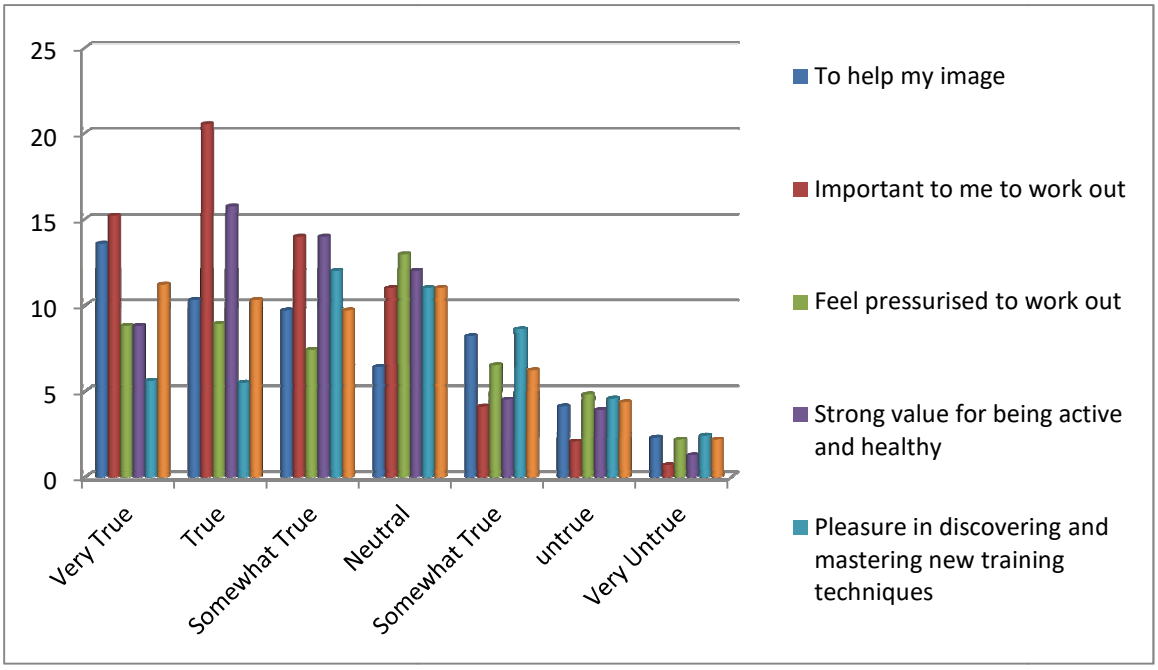
Key: 1.Very Untrue, 2.Untrue, 3.Somewhat Untrue, 4.Neutral, 5.Somewhat True, 6.True and 7.Very True

		7	6	5	4	3	2	1		Mean	S.D.
To help my image	N	68	60	68	56	96	72	80	500	3.58	1.81

	Total Score	476	360	340	224	288	144	80	1912		
	%	13.6	10.3	9.7	6.4	8.2	4.11	2.29	54.63		
Important to me to work out	**N**	76	120	96	100	48	36	24	500	3.64	1.88
	Total Score	532	720	480	400	144	72	24	2372		
	%	15.2	20.6	14	11	4.1	2.06	0.69	67.77		
Feel pressurised to work out	**N**	44	52	52	116	76	84	76	500	3.57	1.8
	Total Score	308	312	260	464	228	168	76	1816		
	%	8.8	8.91	7.4	13	6.5	4.8	2.17	51.88		
Strong value for being active and healthy	**N**	44	92	96	104	52	68	44	500	3.77	1.88
	Total Score	308	552	480	416	156	136	44	2092		
	%	8.8	15.8	14	12	4.5	3.89	1.26	59.78		
Pleasure in discovering and mastering new training techniques	**N**	28	32	84	92	100	80	84	500	3.33	1.58
	Total Score	196	192	420	368	300	160	84	1720		
	%	5.6	5.49	12	11	8.6	4.57	2.4	49.14		
To be physically fit	**N**	56	60	68	92	72	76	76	500	3.73	1.91
	Total Score	392	360	340	368	216	152	76	1904		
	%	11.2	10.3	9.7	11	6.2	4.34	2.17	54.39		

Table 4.26 (b)

Motivation for exercise/work out (or would like to work out) in the parks



The mean scores for the fun and interesting is the largest at 3.79 and S.D at 1.33 respectively. The overall mean scores are in the range of 3.55 to 3.79 showing the concentration of responses in between somewhat true and neutral. The responses indicate the mild agreement and partial endorsement. The same indicates that agreement with the variables but not strongly.

Physical activity helping to maintain good shape and good image of self is strongly agreed upon by 13.6% of the respondents. The physical Activity in parks is felt to reduce the feeling of pressure at work by 35.8% of the respondents. 12% of the respondents have neutral opinion about activeness and health concerns through physical activity done in parks.

Of all the reasons considered for the question under consideration, importance has the highest weighted average at 67.77% of the total responses. The mean values drawn from the responses range from 3.33 to 3.77 indicating the moderate ratings across various responses. The S.D. range between 1.58 and 1.91 indicate the medium level of variation indicating the uniformity in the responses received from the sample respondents. 13.6% of the respondents are towards the strong continuum of improving the image through the physical activity undertaken in parks.

Table 4.27(a)
Self-Efficacy Factors for Motivation for Physical activity in Parks

Statements		5	4	3	2	1		Mean	S.D
Improves Lifestyle	N	156	124	116	60	44	500	2.95	1.36
	Total Score	780	496	348	120	44	1788		
	%	31.2	19.84	13.92	4.8	1.76	71.52		
Exercise as displaced priority	N	148	148	100	44	60	500	3	1.41
	Total Score	740	592	300	88	60	1780		
	%	29.6	23.68	12	3.52	2.4	71.2		
Exercise planning and scheduling	N	88	80	104	104	124	500	2.78	1.41
	Total Score	440	320	312	208	124	1404		
	%	17.6	12.8	12.48	8.32	4.96	56.16		
Self-monitoring	N	80	116	108	96	100	500	2.94	1.35
	Total Score	400	464	324	192	100	1480		
	%	16	18.56	12.96	7.68	4	59.2		
Goal-setting	N	88	100	104	100	108	500	2.91	1.4

	Total Score	440	400	312	200	108	1460		
	%	17.6	16	12.48	8	4.32	58.4		
Social support	**N**	76	108	108	104	104	500	2.89	1.36
	Total Score	380	432	324	208	104	1448		
	%	15.2	17.28	12.96	8.32	4.16	57.92		
Reinforcement	**N**	64	124	164	76	72	500	2.78	1.38
	Total Score	320	496	492	152	72	1532		
	%	12.8	19.84	19.68	6.08	2.88	61.28		

Self –efficacy is a vital psychological paradigm that influences an individual's skills and performance. It pushes the confidence of an individual in doing something. The Physical activity in the present study among the middle aged is very challenging as it is to be done in the parks. The confidence, influence and impact of the physical activity undertaken in parks is what sums up to self-efficacy formation.

Physical activity in the parks would lead to social support among the park goers. The physical activity supports physical health, mental health and improves overall satisfaction with life. There is an agreement from the respondents regarding the same. The Physical activity undertaken in the Parks is tested by the health experts to be yielding the Physical health and mental health.

Physical Activity as we understand is important irrespective of the age group of an individual. The present research mustered self-efficacy factors that motivate an individual to do the physical activity in the parks. Lifestyle is a combination of routines, discipline and typical standards. Adherence to regular physical activity as a healthy choice and maintaining commitment.71.52% of the composite mean score are recorded by the sample responses. 31.2% of the responses are skewed towards lifestyle as a byproduct of the repeated physical activity.

Physical activity in India suffers significant challenges as Indians are not concerned about the recommended activity levels. The present shifts in thought process, health concerns and awareness has sent about a distressing situation as a panacea to the people especially the middle-aged who have to fundamentally look at access also given the personal situation. 29.6% of the

sample respondents feel it has to be taken on a regular bases as there is awareness coupled with regular physical activity.

Exercise planning and scheduling of physical activity is a sustainable routine to be involved into the routine especially with the middle-aged people.30.4% of the sample respondents urge the consistency of the physical activity. Physical activity in parks among the middle-aged people needs the self-discipline to ensure consistency with self-monitoring to cope with intensity and mindset to do the physical activity.21.6% of the mean scores indicate that respondents feel that self-monitoring sometimes impacts the self-efficacy in physical activity.

Physical activity among the middle-aged is more for sustainable health and sustainability rather than the other considerations. Age-related fatigue is also to be considered as could be understood with the interactions. Women have medical reasons and weight management and muscle loss issues to be addressed to. The goal could differ with the gender, age and life cycle and other issues as understood in the interaction during the questionnaire survey.

6.56% of the respondents completely turn down lifestyle improvement factor. 168 respondents place exercise and scheduling to be sought on continuous basis. 4.32% of the response are in disfavour of quality goal-Setting practiced. 34.56% of the respondents place strong opinion on self-monitoring to influence physical activity. The mean scores indicate that for all the variables in the table the respondents are undecided about self efficacy factors as the leaning is towards disagreement but not strongly. They are concerned about self-efficacy factors for Motivation for Physical activity in Parks. The clear agreement with the statements is imperative.

Table 4.27 (b)

Self-Efficacy Factors for Motivation for Physical activity in Parks

Statements		**5**	**4**	**3**	**2**	**1**		**Mean**	**S.D**
Time management	**N**	56	136	140	112	56	500	2.45	1.23
	Total Score	280	544	420	224	56	1524		
	%	11.2	21.76	16.8	8.96	2.24	60.96		
Relapse prevention	**N**	88	116	108	104	84	500	2.61	1.41
	Total Score	440	464	324	208	84	1520		
	%	17.6	18.56	12.96	8.32	3.36	60.8		

Social support for exercise – family		108	108	116	92	76		2.87	1.36
	N						500		
	Total Score	540	432	348	184	76	1580		
	%	21.6	17.28	13.92	7.36	3.04	63.2		
Social support for exercise – friends		116	112	108	88	76		2.82	1.41
	N						500		
	Total Score	580	448	324	176	76	1604		
	%	23.2	17.92	12.96	7.04	3.04	64.16		
Social support – overall	**N**	92	116	100	84	108	500	2.96	1.37
	Total Score	460	464	300	168	108	1500		
	%	18.4	18.56	12	6.72	4.32	60		
Physical health Score	**N**	124	108	140	52	76	500	2.79	1.3
	Total Score	620	432	420	104	76	1652		
	%	24.8	17.28	16.8	4.16	3.04	66.08		
Mental health Score	**N**	88	84	108	96	124	500	2.81	1.43
	Total Score	440	336	432	192	124	1524		
	%	17.6	13.44	17.28	7.68	4.96	60.96		
Satisfaction with Life	**N**	95	98	108	100	99	500	2.8	1.12
	Total Score	475	392	324	200	99	1490		
	%	19	15.68	12.96	8	3.96	59.6		

Problematic way of patterns of life often lead to complicated situations. This triggers risky situations in life. This needs a support by the family, friends and others. The health score of an individual protects individuals from escalating chronic health situations. The healthy living is a result of physical health score, mental health score and the like. The physical activity as leading physical health score has got positive responses by 42.08% of the total responses.

12.64% of the respondents totally disapprove the benefits of mental health. 34.68% of the sample respondents contend the satisfaction with life as resulting from the Physical activity undertaken in the Parks. The overall responses in case of self-efficacy factors for motivation for the physical activity in parks indicates a neutral to slightly disagreement continnum.

The responses spread around the moderate or mixed opinion. The responses indicate the strong disagreement. The S.D. values is between 1.12 and 1.43 indicating the moderate level of variation in the overall responses received from the sample respondents.

SECTION-II

Impact of the Gender of the sample middle aged respondents and self-efficacy factors in motivating in undertaking the physical activity in the parks

The gender plays a vital role in the formation of physical activity undertaken in the parks among the middle aged people. It actually helps in determining the self-efficacy factors which is very important in undertaking the magnitude of the physical activity. There is physical, mental and psychological differences that exist among men and women given various other internal and external factors. The women tend to be inclined towards the familital obligations, personal responsibilities and the like. The data regarding the self-efficacy factors among the men and women respondents is arrayed below.

HYPOTHESIS 3

H_0: There is no significant association between the gender and the self-efficacy in the physical activity undertaken in the parks of sample respondents

H_1: There is a significant association between the gender and the self-efficacy in the physical activity undertaken in the parks of sample respondents

Table 4.28
Self-Efficacy Factors for Motivation for Physical activity in Parks

Statements		5	4	3	2	1		Mean	S.D
Improves Lifestyle	N	156	124	116	60	44	500	2.95	1.36
Exercise as displaced priority	N	148	148	100	44	60	500	3	1.41
Exercise planning and scheduling	N	88	80	104	104	124	500	2.78	1.41

Self-monitoring	N	80	116	108	96	100	500	2.94	1.35
Goal-setting	N	88	100	104	100	108	500	2.91	1.4
Social support	N	76	108	108	104	104	500	2.89	1.36
Reinforcement	N	64	124	164	76	72	500	2.78	1.38
Time management	N	56	136	140	112	56	500	2.45	1.23
Relapse prevention	N	88	116	108	104	84	500	2.61	1.41
Social support for exercise – family	N	108	108	116	92	76	500	2.87	1.36
Social support for exercise – friends	N	116	112	108	88	76	500	2.82	1.41
Social support – overall	N	92	116	100	84	108	500	2.96	1.37
Physical health Score	**N**	124	108	140	52	76	500	2.79	1.3
Mental health Score	**N**	88	84	108	96	124	500	2.81	1.43
Satisfaction with Life	**N**	95	98	108	100	99	500	2.8	1.12

The data presents the distribution of responses across a 5-point scale for various self-efficacy and well-being statements from a sample of 500 participants. Overall, the mean scores for most factors hover around the mid-range, indicating moderate agreement or confidence levels. For example, *Exercise as Displaced Priority* has one of the highest means at 3.0, suggesting participants somewhat agree that exercise is a priority, whereas *Time Management* has a lower mean of 2.45, indicating challenges in effectively managing time for exercise. *Improves Lifestyle* (mean = 2.95) and *Self-Monitoring* (mean = 2.94) also reflect moderate confidence, implying that participants somewhat believe in the positive impact of exercise and their ability to track it.

The standard deviations, ranging mostly between 1.23 and 1.43, reveal a wide variability in responses, showing diverse perceptions among the participants. For instance, *Reinforcement* and *Goal-Setting* both have means below 3, indicating less agreement or confidence in these areas, which might be potential barriers to exercise adherence. *Social Support* factors, including family and friends, also register means below 3, pointing to moderate or lower perceived social encouragement. Well-being indicators such as *Physical Health Score* (mean = 2.79), *Mental Health Score* (mean = 2.81), and *Satisfaction with Life* (mean = 2.8) suggest participants perceive their overall health and life satisfaction as moderate, possibly correlating with their moderate self-efficacy levels. Together, these results highlight areas where interventions could focus to enhance self-efficacy, support, and well-being to promote healthier lifestyles.

Table 29

Descriptive statistics and self-efficacy factors variable gender wise

Self-Efficacy Factor	Gender	N	Mean	SD	SEM	p-value
Improves Lifestyle	Male	250	3.1	1.32	0.08	0.021*
	Female	250	2.8	1.39	0.09	
Exercise as Displaced Priority	Male	250	3.2	1.34	0.08	0.010*
	Female	250	2.8	1.47	0.09	
Exercise Planning and Scheduling	Male	250	2.9	1.4	0.09	0.042*
	Female	250	2.65	1.42	0.09	
Self-Monitoring	Male	250	3	1.3	0.08	0.15 (NS)
	Female	250	2.88	1.39	0.09	
Goal-Setting	Male	250	3.05	1.35	0.09	0.036*
	Female	250	2.77	1.43	0.09	
Social Support	Male	250	2.95	1.28	0.08	0.12 (NS)
	Female	250	2.83	1.42	0.09	
Time Management	Male	250	2.6	1.25	0.08	0.015*
	Female	250	2.3	1.2	0.08	
Relapse Prevention	Male	250	2.75	1.38	0.09	0.028*
	Female	250	2.48	1.43	0.09	
Physical Health Score	Male	250	2.85	1.28	0.08	0.162
	Female	250	2.72	1.33	0.08	(NS)

Mental Health Score	Male	250	2.95	1.4	0.09	0.031*
	Female	250	2.67	1.45	0.09	
Satisfaction with Life	Male	250	2.92	1.1	0.07	0.018*
	Female	250	2.68	1.13	0.07	

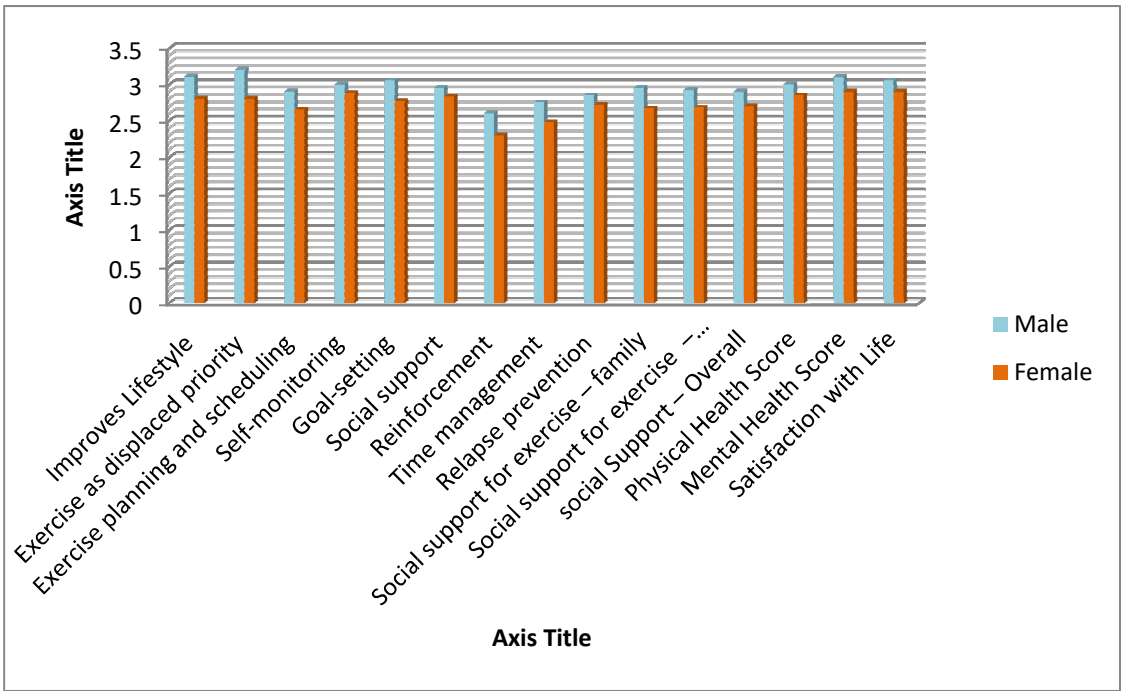
Note: HS: Highly Significant; NS: Not Significant

The data show statistically significant gender differences in several self-efficacy factors related to exercise and well-being, using a significance level of **α = 0.05**. Males scored significantly higher than females in factors such as *Improves Lifestyle* (M = 3.1 vs. F = 2.8, **p = 0.021**), *Exercise as Displaced Priority* (M = 3.2 vs. F = 2.8, **p = 0.010**), *Exercise Planning and Scheduling* (**p = 0.042**), *Goal-Setting* (**p = 0.036**), *Time Management* (**p = 0.015**), and *Relapse Prevention* (**p = 0.028**). Additionally, males reported better outcomes in *Mental Health Score* (M = 2.95 vs. F = 2.67, **p = 0.031**) and *Satisfaction with Life* (**p = 0.018**). Since all these p-values are below the 0.05 threshold, the differences are statistically significant, indicating that males in this sample have higher exercise-related self-efficacy and associated mental well-being.

In contrast, no statistically significant differences were observed in *Self-Monitoring* (**p = 0.15**), *Social Support* (**p = 0.12**), and *Physical Health Score* (**p = 0.162**), as their p-values exceed the 0.05 level. This suggests that both genders perceive similar abilities in monitoring their exercise behavior, receiving social support, and maintaining physical health. The absence of significant differences in these areas implies shared strengths or challenges across genders, regardless of variations in behavioral planning or psychological outcomes.

These findings highlight important gender disparities in exercise self-efficacy and related life outcomes. Females reported lower mean scores in several key areas, suggesting they may experience more barriers or lower confidence in managing health-related behaviors. To address this, targeted interventions—especially in time management, goal-setting, and relapse prevention—should be designed to enhance self-efficacy among females. Strengthening these areas could improve their mental health and life satisfaction, helping to close the gap indicated by the significant p-values in this study.

Figure 29
Self-Efficacy Factors According to Gender



The mean scores indicate that males generally report higher self-efficacy across all factors compared to females. For example, males scored higher on *Improves Lifestyle* (3.1 vs. 2.8), *Exercise as Displaced Priority* (3.2 vs. 2.8), and *Goal-Setting* (3.05 vs. 2.77), suggesting that males feel more confident in these areas related to exercise behavior and lifestyle improvements. Similarly, males report stronger *Self-Monitoring* (3.0 vs. 2.88) and better *Time Management* (2.75 vs. 2.48), which are key components in maintaining a consistent exercise routine. The slightly higher scores in *Relapse Prevention* (2.85 vs. 2.72) and *Reinforcement* (2.6 vs. 2.3) further reinforce the idea that males perceive themselves as more capable of overcoming setbacks and staying motivated.

When looking at social support and health-related scores, males again report higher means, such as *Social Support for Exercise – Family* (2.95 vs. 2.67) and *Social Support for Exercise – Friends* (2.92 vs. 2.68), indicating stronger perceived encouragement from their social circles. This extends to overall *Social Support* (2.9 vs. 2.7), which could positively influence their exercise adherence. Additionally, males rate their *Physical Health Score* (3.0 vs. 2.85), *Mental Health Score* (3.1 vs. 2.9), and *Satisfaction with Life* (3.05 vs. 2.9) higher, suggesting better perceived well-being overall. These differences highlight a gender disparity where males tend to

feel more efficacious and supported in their exercise behaviors and lifestyle, potentially influencing their motivation and consistency in physical activity.

Table 30

Correlation between self-efficacy among male

	1	2	3	4	5	6	7	8
Improves Lifestyle	1							
Exercise as Displaced Priority	0.45**	1						
Exercise Planning & Scheduling	0.38**	0.30**	1					
Self-Monitoring	0.40**	0.33**	0.41**	1				
Goal-Setting	0.50**	0.28*	0.49**	0.46**	1			
Social Support	0.35**	0.25*	0.30**	0.40**	0.52**	1		
Time Management	0.42**	0.36**	0.45**	0.39**	0.50**	0.43**	1	
Relapse Prevention	0.47**	0.32**	0.43**	0.44**	0.48**	0.38**	0.47**	1

The correlation matrix for self-efficacy factors among males reveals strong and statistically significant positive relationships between most variables. Notably, *Goal-Setting* shows robust connections with *Improves Lifestyle* ($r = 0.50$, $p < 0.01$), *Exercise Planning & Scheduling* ($r = 0.49$, $p < 0.01$), and *Time Management* ($r = 0.50$, $p < 0.01$), indicating that males who set clear exercise goals tend to also engage in effective planning and manage their time well. Additionally, *Relapse Prevention* correlates strongly with multiple factors, highlighting its role in maintaining consistent exercise behaviors. While most correlations are highly significant ($p < 0.01$), some like the association between *Exercise as Displaced Priority* and *Social Support* are weaker but still significant ($p < 0.05$). Overall, these results suggest that self-efficacy components among males are closely interconnected, working together to promote exercise adherence and lifestyle improvements.

Table 31

Correlation between self-efficacy among female

	1	2	3	4	5	6	7	8
	t							
Improves Lifestyle								

Exercise as Displaced Priority	0.32**	1						
Exercise Planning & Scheduling	0.35**	0.28**	1					
Self-Monitoring	0.37**	0.31**	0.39**	1				
Goal-Setting	0.40**	0.26**	0.42**	0.43**	1			
Social Support	0.30**	0.20**	0.33**	0.38**	0.48**	1		
Time Management	0.36**	0.30**	0.41**	0.37**	0.44**	0.40**	1	
Relapse Prevention	0.38**	0.27**	0.40**	0.39**	0.42**	0.35**	0.41**	1

The correlation matrix for self-efficacy factors among females shows consistent positive and statistically significant relationships across all variables at the **$p < 0.01$** level. The strongest correlations are observed between *Goal-Setting* and *Social Support* (r = 0.48), as well as *Goal-Setting* and *Self-Monitoring* (r = 0.43), highlighting the importance of support systems and self-regulation in female exercise behaviors. Other notable strong correlations include *Exercise Planning & Scheduling* with *Time Management* (r = 0.41) and *Relapse Prevention* (r = 0.40), indicating that planning and managing time effectively contribute to maintaining consistent exercise routines. Even the more moderate correlations, such as *Exercise as Displaced Priority* with *Social Support* (r = 0.20), are statistically significant, suggesting that social support still plays a meaningful role, albeit weaker, in how exercise fits into daily priorities. Overall, these results demonstrate a well-connected network of self-efficacy factors in females, where improvements in one area are likely to positively influence others, supporting sustained exercise and lifestyle improvements.

Objective 3

To understand the factors influencing the level of Physical Activity

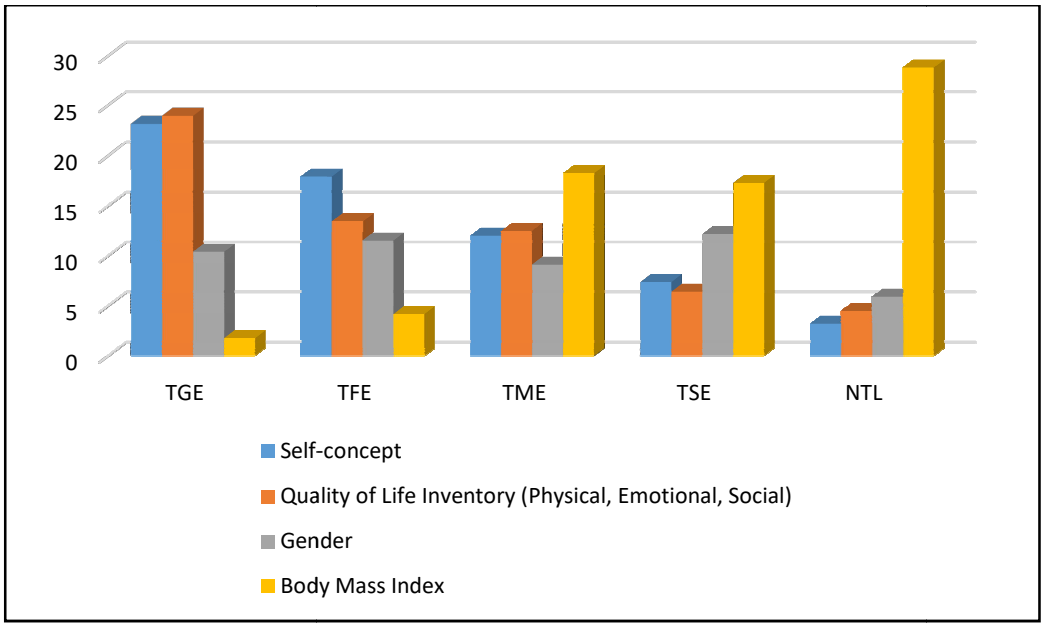
Table 4.32
Personal factors

		To a Great Extent	To a Full Extent	To a Moderate Extent	To a Small Extent	Not at All		Mean	S.D.
Self-concept	**N**	116	112	100	92	80	500	2.79	1.38
	Total	580	448	300	184	80	1592		

	Score %	23.2	17.92	12	7.36	3.2	63.7		
Quality of Life Inventory (Physical, Emotional, Social)	**N**	120	84	104	80	112	500	2.87	1.35
	Total Score	600	336	312	160	112	1520		
	%	24	13.44	12.48	6.4	4.48	60.8		
Gender	**N**	52	72	76	152	148	500	2.97	1.42
	Total Score	260	288	228	304	148	1228		
	%	10.4	11.52	9.12	12.16	5.92	49.1		
Body Mass Index	**N**	44	52	152	108	144	500	3.1	1.1
	Total Score	44	104	456	432	720	1756		
	%	1.76	4.16	18.24	17.28	28.8	70.2		

Figure 4.32

Personal factors



The influence of personal factors in influencing the sample middle aged respondents to undertake physical activity in the parks is identified under self-concept, Quality of life, Gender and Body mass index. Individuals have their own understanding of the self as reflected in personal capabilities and situations. The quality of life inventory comprising of physical, emotional and social factors accentuate in going about the Physical activity. Going by the intra

personal factors, Concept of self, influencing the physical activity levels is opined to a great extent by 23.2% of the Respondents.

Gender as a factor influencing the physical activity in the parks is posed to the respondents. 15.2% of the respondents feel the influence of Gender to a moderate extent. The importance of maintaining Body Mass Index according to the height of an individual is more pertinent and Understandable by the people as there is awareness regarding the same. 30.4% of the respondent have expressed agreement to a moderate extent regarding the Body Mass Index to influence the physical activity level among the individuals. The personal limitations could be the gender as women are posed with higher responsibilities and cannot strictly adhere to regular and routine physical activity levels.

Individuals in the middle age find the Body mass index as a major influencing factor in deciding consciously the level of physical activity to be undertaken. Sometimes it is rather a major focal point especially for the middle aged people as they will have issues of weight issues reflecting in lower energy levels because of poor digestion and other health concerns. The Body Mass Index is often seen as a major health risk factor to be introspected into for sustaining the energy levels in the body. The mean score for BMI is at 70.24% being the highest in the present data set. The S.D. values in the range of 1.1 to 1.42 shows the consistency in the responses. The Gender has the highest S.D among the values indicating the obvious differences in the goals and the body composition.

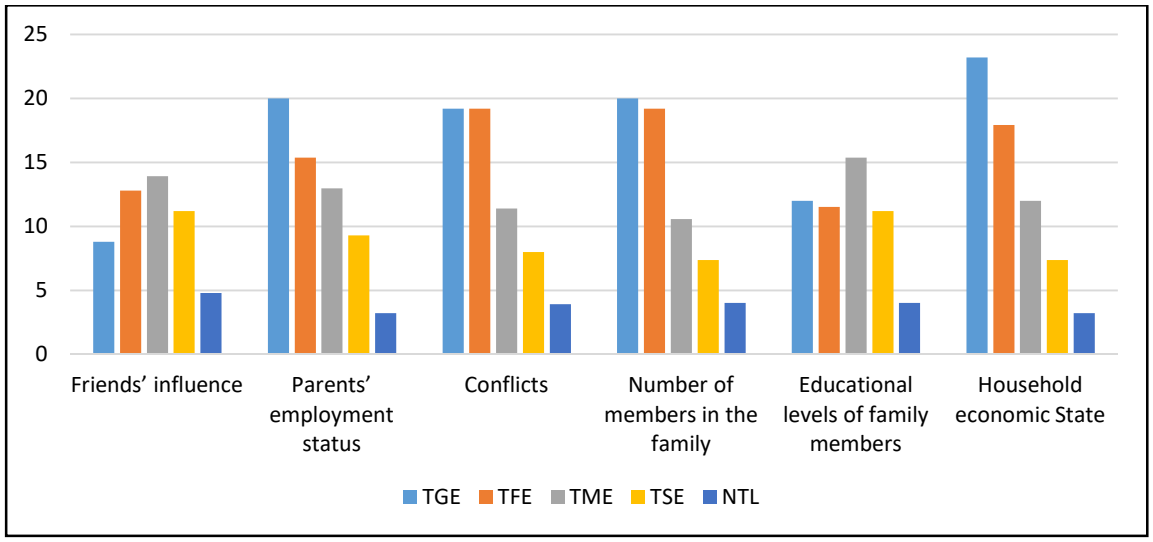
Table 4.33

Miscellaneous Factors/ Other Factors

		To a Great Extent	To a Full Extent	To a Moderate Extent	To a Small Extent	Not at All		Mean	S.D
Friends' influence	**N**	44	80	116	140	120	500	2.81	1.42
	Total Score	220	320	348	280	120	1288		
		8.8	12.8	13.92	11.2	4.8	51.52		
Parents' employment status	**N**	100	96	108	116	80	500	2.94	1.36
	Total Score	500	384	324	232	80	1520		
	%	20	15.36	12.96	9.28	3.2	60.8		
Conflicts	**N**	96	112	95	100	97	500	2.95	1.38
	Total Score	480	448	285	200	97	1510		
	%	19.2	19.2	11.4	8	3.9	61.7		
Number of members in the family	**N**	100	120	88	92	100	500	2.93	1.42
	Total Score	500	480	264	184	100	1528		
		20	19.2	10.56	7.36	4	61.12		
Educational levels of family members	**N**	60	72	128	140	100	500	2.98	1.42
	Total Score	300	288	384	280	100	1352		
	%	12	11.52	15.36	11.2	4	54.08		
Household economic State	**N**	116	112	100	92	80	500	2.8	1.38
	Total Score	580	448	300	184	80	1592		
	%	23.2	17.92	12	7.36	3.2	63.68		

Figure 4.33

Miscellaneous Factors/ Other Factors



The level of physical activity an individual adopts also depends on the miscellaneous/ other identified in friends' influence, parents' influence, employment status and othres. Each of these factors influence differently. The affinity of individuals with family friends and other reference group is very much influential among the various factors influencing the physical Activity an individual undertakes in parks. Going to the park does earn friendship as there is tendency develop affinity with the reference group. 23.2% of the respondents moderately feel that friends influence the levels physical Activity in the park. The family members sometimes influence the levels of physical activity to the parks. 32.4% of the respondent's support the statement.

The number of members in the family does have an influence on the physical activity undertaken. The economic status that exists at home is likely to influence the physical activity engagement by the individuals. This largely influences the access to fitness coupled with health education and supporting life style. The overall health is the product of all of these. Mean score of 63.68% of the responses are received for the household economic status indicating the imperativeness of the same among the sample respondents.

The Educational levels of family members helps to educate and sustain active lifestyle by seeking physical activity. This keeps them physically healthy mentally alert and also reduces the risk for health problem physical activist, levels help to develop team - work, self-discipline sportsmanship, leadership and socialize.

The socio-economic status of the household is positively associated with the level of physical activity sought by the middle aged people. 23.2% of the respondents contend that socio-economic status impact the physical activity among the sample respondents to a great extent.

Objective –IV

To understand the influence of external and internal environmental factors on the level of Physical activity among the middle aged people

Table 4.34

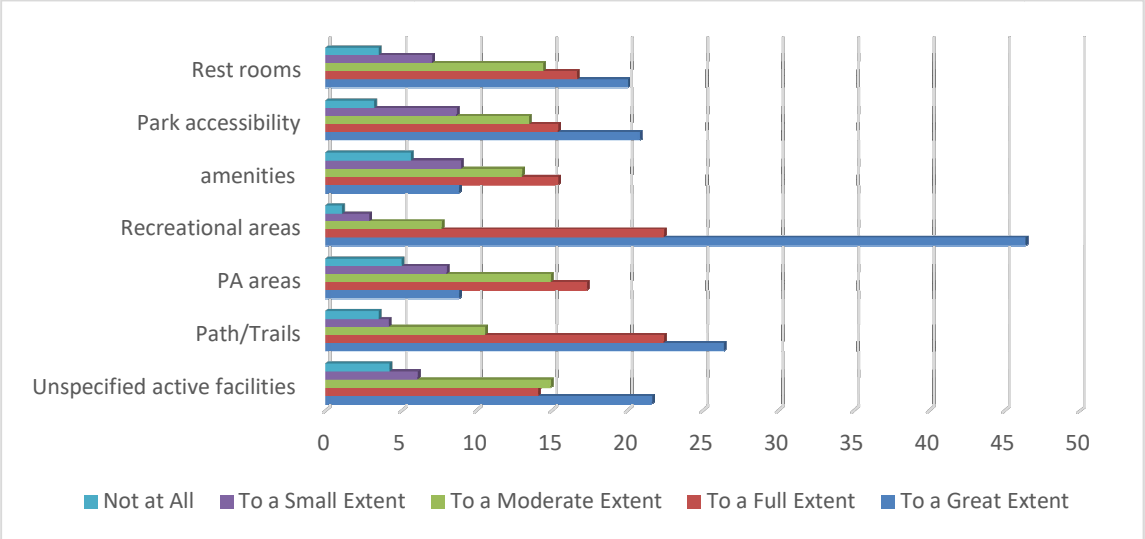
Physical Topography of the Parks- Availability of activity features

Statement		To a Great Extent	To a Full Extent	To a Moderate Extent	To a Small Extent	Not at All		Mean	S.D.
Unspecified active facilities	N	108	88	124	76	104	500	3.52	1.1
		540	352	372	152	104	1520		
		21.6	14.08	14.88	6.08	4.2	60.84		
Path/Trails	N	132	140	88	52	88	500	3.13	1.08
		660	560	264	104	88	1676		
		26.4	22.4	10.56	4.16	3.5	67.02		
PA areas	N	44	108	124	100	124	500	3.12	1.62
		220	432	372	200	124	1348		
		8.8	17.28	14.88	8	5	53.96		
Recreational areas	N	232	140	64	36	28	500	3.79	1.55
		1160	560	192	72	28	2012		
		46.4	22.4	7.68	2.88	1.1	80.46		
Amenities	N	44	96	108	112	140	500	3.91	1.23
		220	384	324	224	140	1292		

		8.8	15.36	12.96	8.96	5.6	51.68		
Park accessibility	N	104	96	112	108	80	500	3.71	1.34
		520	384	336	216	80	1536		
		20.8	15.36	13.44	8.64	3.2	61.44		
Rest rooms	N	100	104	120	88	88	500	3.79	1.79
		500	416	360	176	88	1540		
		20	16.64	14.4	7.04	3.5	61.58		

Figure 4.34

Physical Topography of the Parks- Availability of activity features



Parks in the city of the Bengaluru provides people with nature experiences. The parks are upgraded to provide the residents with facilities to engage them in physical activity. Usually the male used the parks more than the females. Public parks provide places for individuals to walk or jog, and many have specific facilities for sports, exercises and other vigorous activities. 14.88% of the respondents find that unspecified active facilities influence to moderate extent. 4.2% of the respondents turn down the statement.

The designated paths combined with greenery facilitate physical activity in the parks. They provide for walking, hiking and the like. Use of parks, trails, and greenways combined with additional interventions also provide opportunities for school and family engagement. 48.8% of the respondents contend that the path/ trails available in parks facilitate the physical activity for the middle aged people. Equitable park access can be defined as the just and fair quantity of, as well as proximity and connections to, quality parks and programs that are safe, inclusive, culturally relevant and welcoming to everyone. Parks as recreational areas is contended to a great extent by 46.4% of the respondents.

The influence the park features on the Physical activity of the sample respondents is collected in respect of the identified factors. Recreational areas have highest weighted average of 80.46% among all the factors. Path/ Trails have the second highest weighted average of 67.02%. 14.88%

of the responses indicate that the unspecified active facilities have an impact to a moderate extent. 46.4% of the sample respondents indicate that Picnic areas have a greater influence in the Physical activity undertaken in the Parks.

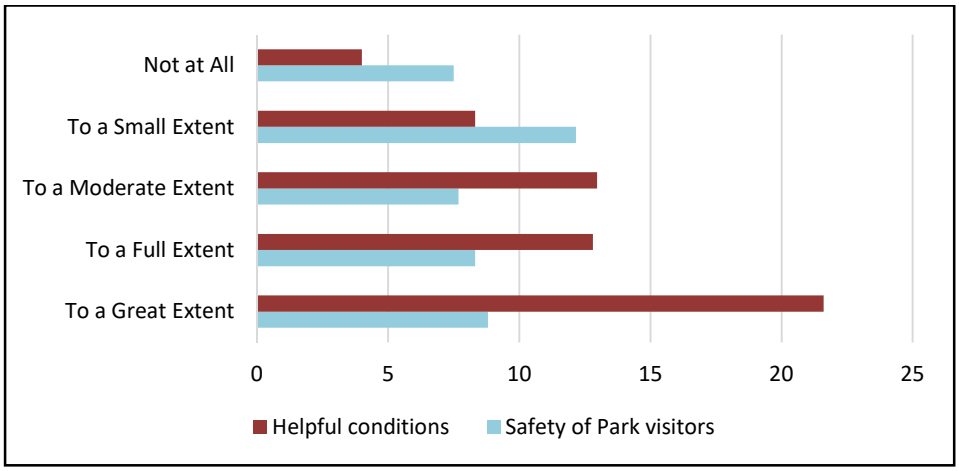
Table 4.35

Physical Topography of Parks- Aesthetics nature of Park

		To a Great Extent	To a Full Extent	To a Moderate Extent	To a Small Extent	Not at All		Mean	S.D.
Safety of Park visitors	N	44	52	64	152	188	500	3.57	1.12
	Total Score	220	208	192	304	188	1112		
	%	8.8	8.32	7.68	12.16	7.5	44.46		
Helpful conditions	N	108	80	108	104	100	500	3.92	1.57
	Total Score	540	320	324	208	100	1492		
	%	21.6	12.8	12.96	8.32	4	59.68		

Figure 4.35

Physical Topography of Parks- Aesthetics nature of Park



Prior research has shown that the physical characteristics of one's environment have wide ranging effects on affect and cognition. Neighborhood parks play an important role in promoting physical activity. The activity area, condition and presence of supporting features have an influence on the park users and park-based physical activity levels.

The crime- related safety for park visitors are essential. Even when the moderate physical activity is recommended and vital for middle-aged persons, yet majority do not achieve the

recommended level of physical activity especially in Bengaluru city as the city is very congested and the space at homes are not sufficient and support the same. The study examined the park visits and the association with the safety. More than two-third of the respondents reported the safety of the park visitors to be impacting the park visit for the physical activity. The mean weighted scores are at 44.46% with 8.8% of the responses skewed towards great extent. 7.68% of the responses are towards moderate continuum.

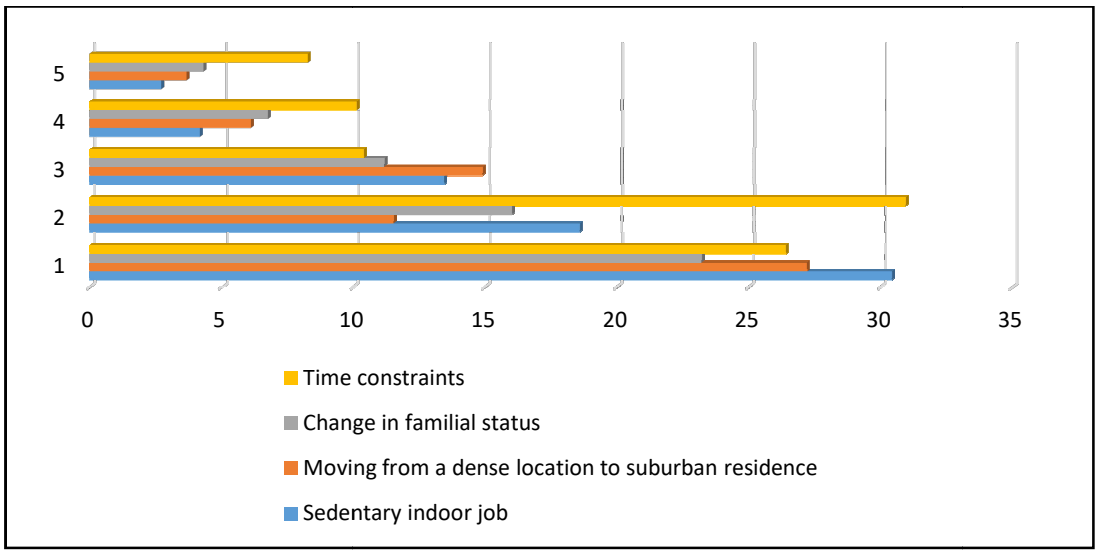
The park condition consisting of two factors namely feature maintenance and hygiene are posed to the respondents. The weighted mean scores in respect of feature maintenance is got at 69.46% and that of hygiene it is 59.68%. 28% of the sample respondents feel that feature maintenance influence the physical activity to a great extent. 13.92% of the responses indicate the moderate response towards feature maintenance. 21.6% of the weighted response towards Hygiene factors is towards the greater continuum.

Table 4.36
Socio-cultural factors

Statement		To a Great Extent	To a Full Extent	To a Moderate Extent	To a Small Extent	Not at All	Total	Mean	S.D.
Sedentary indoor job	**N**	152	116	112	52	68	500	3.31	1.42
	Total Score	760	464	336	104	68	1732		
	%	30.4	18.56	13.44	4.16	2.72	69.28		
Moving from a dense location to suburban residence	**N**	136	72	124	76	92	500	3.01	1.15
	Total Score	680	288	372	152	92	1584		
	%	27.2	11.52	14.88	6.08	3.68	63.36		
Change in familial status	**N**	116	100	92	84	108	500	3.75	1.23
	Total Score	580	400	279	168	108	1535		
	%	23.2	16	11.16	6.72	4.32	61.4		
Time constraints	**N**	132	116	52	76	124	500	3.89	1.17
	Total Score	660	464	156	152	124	1556		
	%	26.4	30.93	10.4	10.13	8.27	86.13		

Figure 4.36

Socio-cultural factors



The research studies show that people spend more time sitting and less time exercising than in the past. We have become more inactive at work, during the commute to work, and in our leisure time. The contributing factors include watching TV or videos, computer use outside school or work, and the use of automobiles or public transit in long commuting hours. The sedentary indoor job is expressed by 30.4% of the sample respondents to impact physical activity to a great extent. Many research studies have warned the general public f the harm of excessive sitting and inadequate exercising.

Time constraints are very crucial in deciding the level of Physical activity undertaken. In the said study the added constraint is the physical activity to be undertaken in the parks. In fact, the city of Bangalore is very fast- paced and crowded in nature. Connectivity to the parks from the residence is also a common barrier as acknowledge by 86.13% of the sample respondents.

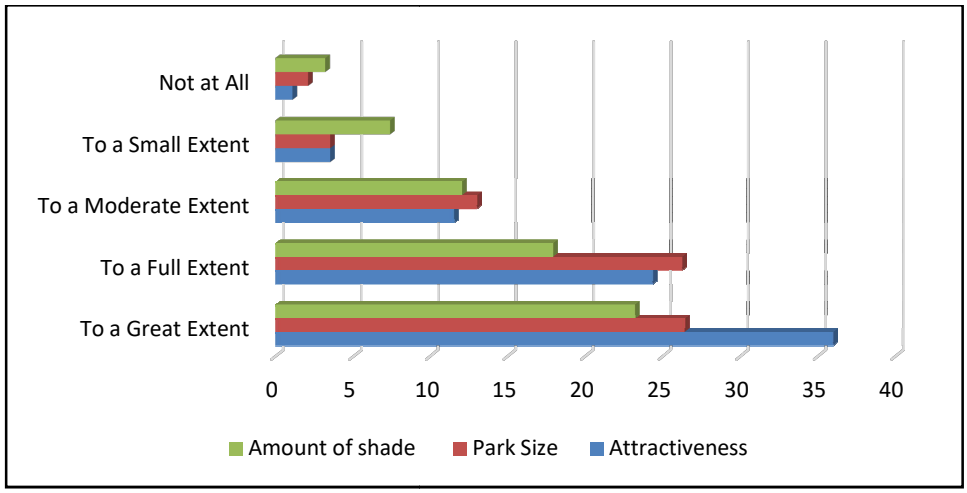
The sedentary indoor job is opined by three-tenth of the respondents to have impact the physical activity in parks to a great extent. The Change in familial status demands marital roles and norms impact the type of physical activity as expressed by 61.6% of the respondents. Parks are very vital for facilitating the physical activity in parks especially with the middle aged people. The research study findings indicates that the time constraints is expressed by the 10.4% of the sample respondents to have moderate impact in going for the physical activity in the parks.

The socio-cultural factors have a profound impact on the physical activity undertaken by the individuals. The present study consisting of the physical activity motivations was made to understand the socio-cultural factors identified under sedentary indoor job, moving from a dense location to suburban residence, Change in familial status and time constraints were identified and posed to the respondents. 86.13% of the weighted average responses are for time constraints of which the impact is onto the positive continuum as indicated by 57.33% of the sample middle-aged respondents. This is often seen in the adjusting the emotional environment, social roles, long-term planning among the others.

Table 4.37
Park Aesthetics

Statement		To a Great Extent	To a Full Extent	To a Moderate Extent	To a Small Extent	Not at All	Total	Mean	S.D
Attractiveness	**N**	180	152	96	44	28	500		
	Total Score	900	608	288	88	28	1912		
	%	36	24.32	11.52	3.52	1.1	76.46		
Park Size	**N**	132	164	108	44	52	500		
	Total Score	660	656	324	88	52	1780		
	%	26.4	26.24	12.96	3.52	2.1	71.22		
Amount of shade	**N**	116	112	100	92	80	500		
	Total Score	580	448	300	184	80	1592		
	%	23.2	17.92	12	7.36	3.2	63.68		

Table 4.37
Park Aesthetics



The parks in the city of Bangalore are very critical environmental resource to influence the middle aged to engage in Physical activity. Urban parks in neighbourhood with the park based environmental characteristics evidence that park attractiveness is expressed by 19.2% of the respondents to a moderate extent. Bangalore is a high-density city and parks are still a major public space for the middle aged people to engage in physical activity. The park size with active facilities for physical activity is strongly contended by 69.2% of the respondents.

Attractiveness, park size and amount of shade are identified under Park Aesthetics. Attractiveness has highest mean score indicating its prominence among the sample middle aged respondents followed by park size at 71.22% response. Moderate responses range at 12% for the identified variables. Attractiveness is believed to have a great influence among the three with mean response at 36% average.

HYPOTHESIS 4

H01: There is no significant association between the selected park related factors and the personal factors/ Miscellaneous factors of the sample respondents in doing the Physical activity.

H11: There is a significant association between the selected park related factors and the Personal factors/ Miscellaneous factors of the sample respondents in doing the Physical activity

Table 4.38

One-Sample Statistics of the selected park related factors and Personal factors/ Miscellaneous factors of the sample respondents

Personal factors				
	N	**Mean**	**Std. Deviation**	**Std. Error Mean**
Self-concept	500	2.7980	1.38312	.06186
Quality of Life Inventory (Physical, Emotional, Social)	500	2.8040	1.40910	.06302
Gender	500	2.9780	1.42463	.06371
BMI	500	2.9140	1.40519	.06284
Miscellaneous factors				
	N	**Mean**	**Std. Deviation**	**Std. Error Mean**
Friends' influence	500	2.8100	1.42054	.06353
Parents' influence	500	3.0200	1.35915	.06078
Parents' employment status	500	2.9400	1.35797	.06073
Conflicts	500	2.9540	1.38265	.06183
Number of member in the family	500	2.9280	1.41663	.06335
Educational levels of family members	500	2.9780	1.42463	.06371
Household economic State	500	2.7980	1.38312	.06186

The descriptive statistics from the sample of 500 participants reveal that both personal and miscellaneous factors exert a moderate influence on exercise behavior. Among the personal factors, self-concept and quality of life show relatively low mean scores (2.798 and 2.804,

respectively), suggesting that participants may have a neutral to slightly negative perception of themselves and their overall well-being in relation to physical activity. Gender and BMI have slightly higher means (2.978 and 2.914), indicating a relatively balanced distribution in their influence, with no strong tendency in either direction.

Regarding the miscellaneous (external) influencing factors, parents' influence stands out with the highest mean score (3.020), suggesting that parental support or encouragement plays a slightly more significant role in shaping exercise habits. Other factors like parents' employment status, number of family members, and educational levels of family members all show moderate influence, with mean values close to 2.9. Friends' influence and household economic state have lower mean scores (2.810 and 2.798, respectively), implying these may be weaker influencing factors compared to parental involvement or family structure.

Overall, the data suggest that while no single factor overwhelmingly dictates exercise behavior, a combination of moderately influential personal and environmental factors—particularly parental involvement—may collectively shape an individual's engagement in physical activity. These findings can guide future interventions by focusing on enhancing self-concept and leveraging family support systems to encourage healthier exercise patterns.

Table 4.39

Anova Table for factors in choosing Parks

		Sum of Squares	df	Mean Square	F	Sig.
Personal factors	Between Groups (Combined)	11.207	3	3.736	.360	.782
	Within Groups	5140.601	496	10.364		
	Total	5151.808	499			
Miscellaneous factors	Between Groups (Combined)	137.994	3	45.998	6.664	.000
	Within Groups	3423.806	496	6.903		
	Total	3561.800	499			

The ANOVA analysis aimed to assess the influence of personal and miscellaneous (external) factors on individuals' choices of parks. The results for personal factors, including variables such as self-concept, gender, BMI, and quality of life, showed no statistically significant effect on park selection. This is indicated by a low F-value of 0.360 and a high p-value of 0.782, which is

well above the 0.05 threshold for significance. These findings suggest that individual characteristics and internal perceptions do not substantially differ among groups when it comes to deciding which parks to use.

In contrast, the analysis of miscellaneous factors—which include social and environmental influences like friends' and parents' influence, family size, education level, and household economic status—revealed a statistically significant impact on park choice. This is supported by a much higher F-value of 6.664 and a highly significant p-value of 0.000. These results imply that external, social, and environmental variables play a more influential role in how people choose parks for recreation or exercise. Overall, the findings highlight the importance of social context and living conditions in shaping individuals' park usage behavior, rather than relying solely on personal or demographic factors.

Table 4.40

Anova Table for frequency of Physical activity in Parks and Intrapersonal factors and Personal Factors

	Frequency of Physical activity in Parks	N	% of Total N	Sum	Mean	Std. Deviation	Minimum	Maximum
Intrapersonal factors	Once	176	35.2%	2426.00	13.7841	3.28268	7.00	22.00
	Twice	116	23.2%	1668.00	14.3793	2.90623	7.00	22.00
	Thrice	208	41.6%	2970.00	14.2788	3.30556	7.00	22.00
	Total	500	100.0%	7064.00	14.1280	3.21314	7.00	22.00
Personal Factors	Once	176	35.2%	1514.00	8.6023	2.65132	3.00	15.00
	Twice	116	23.2%	999.00	8.6121	2.85527	3.00	14.00
	Thrice	208	41.6%	1897.00	9.1202	2.56509	3.00	15.00
	Total	500	100.0%	4410.00	8.8200	2.67168	3.00	15.00

The data examines how often individuals engage in physical activity in parks—once, twice, or thrice per week—and how this correlates with intrapersonal and personal factors. Of the 500 participants, 41.6% reported being active in parks three times per week, 35.2% once per week, and 23.2% twice per week.

Looking at intrapersonal factors (which may include self-motivation, internal goals, and attitudes), those who exercised twice a week had the highest average score (Mean = 14.38),

followed closely by those active three times (Mean = 14.28). Participants who exercised once a week had a slightly lower mean score (13.78). This pattern suggests a generally positive link between higher intrapersonal factor scores and more frequent park-based physical activity, although the differences are not drastic.

For personal factors (such as age, gender, BMI, self-concept), those exercising three times a week also had the highest average score (Mean = 9.12), compared to those who exercised once (Mean = 8.60) or twice (Mean = 8.61). While the variation is modest, it again implies that individuals with stronger personal characteristics or more favorable personal circumstances are slightly more likely to engage in more frequent physical activity in parks.

Overall, the findings indicate that both intrapersonal and personal factors are positively associated with the frequency of physical activity in parks. However, the standard deviations show moderate variability within groups, meaning individual differences still play a role. Most notably, individuals exercising three times a week consistently show slightly higher mean scores, suggesting that frequent park users may have stronger internal motivation and more favorable personal traits supporting their active lifestyle.

CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSION AND SUGGESTIONS

5.1 Introduction

The research study conducted has been the outcome of the outline drawn for the study, considering the delimitations, objectives and the identified dependent and independent variables along with the testing protocol. The city of Bengaluru is one of the fastest growing cities in Asia with floating population coming in large number everyday. The city houses the big industries, corporate houses, Information technology companies, chain of corporate hospitals, educational institutions, professional institutions and the list goes on. Being the garden city of India it was considered the pensioner's paradise as it had most number of lakes and parks giving room for the green pasture across various parts of the city. However, the urbanization changed the face of the city to have upgraded to be silicon city of India. The greener city came under pressure to keep pace with modernization. The city has 1288 parks very efficiently managed by the city authorities spread across the length and breadth of the city covering 243 wards.

The study collected the data from 500 middle-aged respondents comprising male and female respondents in equal numbers to assess the level of Physical activity and motivation undertaken in the Parks in the city of Bengaluru. The participants in the age group of 36 to 55 years have been drawn from five zones spread across the city of Bengaluru. The questionnaire instrument was used to collect the data with the researcher visiting the park visitors in person explaining and clarifying the doubts in filing the questionnaire. The questionnaire was constructed consulting the subject experts in the field of physical education, sociology and psychology, research guide, online validated questionnaire, park authorities and the IV and DV for the study. The revisions and constructive suggestions by the guide and other experts helped questionnaire to be objective-based and comprehensively covering the topic of research study. The questionnaire was prepared with due diligence considering the sample respondents, validation, reliability tests and also meeting the other parametric in this regard.

The questionnaire is divided into different sections. Section-I has collected the basic personal information regarding their socio-economic information along with the Physical activity oriented questions as undertaken in the parks which is actually the focal point of the study. Due care has been taken in covering the objectives set forth for the research study in finalizing the questionnaire. The areas covered have been the level of Physical activity, motivation factors, self-efficacy factors, personal and miscellaneous factors, park features and the like are covered to bring the topic to a logical end. The questionnaire has adopted five-point likert scale and also seven-point likert scale to ensure accuracy and precision in drawing the analysis and final interpretations.

The researcher has contacted the sample respondents available in the parks during the survey. As set forth initially the male and female respondents have been restricted 250 each. The igniting conversations with the park authorities managing the parks unfolded many other dimensions adding more strength in understanding from the administrators' perspective. The Physical activity which is actually the matter of research study had its own delimitations as the age group is between 36 to 55 and also the parks have limited offering in providing the same. However, the study was unfolding the naïve topic as the researches in the topic are very few and also there are no standard set guidelines for the Physical activity in India. The lack of awareness among the respondents was very much evident. In most cases, it was guided by the doctors/ physio and in

case of educated, it was the health conscious that made them to visit parks for betterment. This was encouraging but was not enough.

The middle-aged population often suffers because of various physical, mental, psychological and other traumatic experiences that require special attention over above the medications. Not everybody can afford hitting the gyms or going to personal trainers. It should be noted that the city is very congested with small living spaces let alone be the space for physical activity. For many who visit parks, it is a boon that city has well-equipped parks catering to the needy within the physical reach giving it a different touch in the modern context of information technology era.

The researcher personally interviewed the sample respondents to collect the data. Wherever the explanation was called for from the other end, the nuances were understood and taken care of in further interactions. The respondents were very enthusiastic in answering the questions after they got to know about the research programme. The responses recorded in the questionnaire were treated using appropriate statistical methods and wherever required tables and figures have been incorporated for better understanding through numbers and percentages. The descriptive statistics using mean and S.D. have been able to track the mean responses and also whether the dispersion was within the permissible limits. Anova, independent t-test, Regression, Chi-square test have been used according the requirements of the research study.

5.2 Objectives of the Study

1) To identify the physical activity participation levels of Middle-Aged People.

2) To determine the physical activity participation motivations among active Middle-Aged People.

3) To understand the factors influencing the level of Physical Activity

4) To understand the influence of external and internal environmental factors on the level of Physical activity among the middle aged people.

5.3 MAJOR FINDINGS OF THE STUDY

Key findings on respondent's profile

- Majority of the respondents are from South Bengaluru (26.4%) and from north Bengaluru (22.4%). The total number of respondents considered for the current research programme is 500.

- The frequency, kind and the motive for the physical activity depends on the personal priorities, health demands and other factors. In the present study, the physical activity in the parks is a constraint for the middle aged as the options available are limited.
- The respondents drawn represent 50% male and 50% female each. Male and female representation is equal.
- There is a strong relationship between the educational level and the pursuance of the physical activity undertaken by the individuals. It impacts the awareness they have about the impact of the physical activity on health and well-being of an individual. This is important in drawing the relationship between the educational qualification and physical activity motivation among the individuals.
- 52 % respondents are unmarried and 48% are married. There is a relationship between the marital status, occupational status and the physical activity undertaken by the sample middle-aged respondents.
- Above table indicate the frequency of physical activity undertaken in the parks by the sample middle-aged respondents. 41.6% of the respondents visit park thrice in a week. 35.2% of respondents visit once and 23.2% of them visit the Park twice a week to do physical activities. The proximity of the parks plays a very significant role in undertaking the physical activity. The parks if located in the residential areas is likely to attract the physical activity to influence the regular practice, proximity and consistency.

Key findings on hypothesis testing:

Serial No.	**Hypotheses**	**Variables**	**Test**	**Result**
1	H1: There is a significant association between the Physical undertaken in the Parks and the socio-economic factors of sample respondents.	**City Zone**	.002 (Significant)	City zone, Gender, age, marital status and occupational status indicate the significance at 5% level of significance.
		Gender	.000 (Significant)	
		Age	001 (Significant)	
		Qualification	.470	
		Marital Status	.000 (Significant)	

		Occupational Status	.000 (Significant)	
		Frequency	.440	
2	H1: There is a significant association between the participation levels of middle aged people and the **wellness and performance factors** of the sample respondents	Relaxation	0.022	ANOVA results indicate significant differences in some activities like relaxation, intent to perform better than others, and maintaining a healthy body,
		Enjoying spending time with others	0.064	
		Getting better at an activity	0.883	
		Intent to perform better than others	0.046	
		Doing activity with others	0.212	
		Coping with stress	0.327	
		Maintaining a healthy body	0.003	
		Muscle Building	0.316	
		Improving medical condition	0.268	
		Improving cardiovascular fitness	0.117	
3	H1: There is no significant association between the gender and the self-efficacy in the	Improves Lifestyle	0.021*	These findings highlight important gender disparities in
		Exercise as displaced	0.010*	

	physical activity undertaken in the parks of sample respondents	priority		exercise self-efficacy and related life outcomes. Females reported lower mean scores in several key areas, suggesting they may experience more barriers or lower confidence in managing health-related behaviors
		Exercise planning and scheduling	0.042*	
		Self-monitoring	0.15 (NS)	
		Goal-setting	0.036*	
		Social support	0.12 (NS)	
		Time management	0.015*	
		Relapse prevention	0.028*	
		Physical Health Score	0.162	
		Mental Health Score	0.031*	
		Satisfaction with Life	0.018*	

Table 5.2

Key findings on H1

Sl. No.	Independent Variables	Dependent Variable	Test	Result
H1: To identify the association between the Physical activity undertaken in the Parks and the socio-economic factors of the sample respondents.				
Anova Test				
1	City Zone	Level of Physical activity undertaken in the Parks	6.100	H1 is accepted
	Gender		.003	
	Age		1.687	
	Qualification		.935	

	Marital Status		1.580	
	Occupational Status		1.035	
	Frequency		.821	
Chi-Square test				
2	City Zone	Level of Physical activity undertaken in the Parks	13.542	H1 is accepted
	Gender		24.547	
	Age		28.420	
	Qualification		17.311	
	Marital Status		4.800	
	Occupational Status		25.821	
	Frequency		8.145	
Regression Coefficient				
3	Zone of the City	Level of Physical activity undertaken in the Parks	2.881	H1 is accepted
	Gender		4.426	
	Age in Years		2.835	
	Educational Qualification		1.936	
	Marital Status		4.622	
	Occupational Status		5.888	
	Frequency		3.991	

Table 5.3
Key findings on H2

Sl. No.	**Independent Variables**	**Dependent Variable**		**Test**	**Result**
H2: To identify the association between the Gender-wise participation levels of middle-aged people and the **wellness and performance factors** of the sample respondents.					
Anova Test					
Sl. No.	**Independent Variables**	**Dependent Variable**	**Male**	**Female**	**Result**
1	Relaxation	Gender-wise	0.02	0.03	Males are more motivated

	Enjoying spending time with others	participation levels of middle-aged people	<0.001	<0.001	by physical goals and competition, while females prioritize social connection during physical activity. Both genders share similar motivations for general health benefits.
	Getting better at an activity		0.10	0.08	
	Intent to perform better than others		0.01	0.04	
	Doing activity with others		0.004	0.01	
	Coping with stress		0.15	0.10	
	Maintaining a healthy body		0.005	0.01	
	Muscle Building		<0.001	0.95	
	Improving medical condition		0.28	0.40	
	To improve cardiovascular fitness		0.55	0.06	
One-Sample Test					
2	Relaxation	Gender-wise participation levels of middle-aged people	5	3.33	Males show stronger motivation for physical and performance-related goals like muscle building, competition, and maintaining health, while females place more emphasis on social aspects and report slightly lower feelings of improvement and stress coping. Both genders value relaxation and social engagement, but differ in how they connect activities to personal development and well-being.
	Enjoying spending time with others		6.25	11.67	
	Getting better at an activity		0	-2.5	
	Intent to perform better than others		10	5	
	Doing activity with others		6.67	8.33	
	Coping with stress		-3.75	-2.5	
	Maintaining a healthy body		11.67	10	
	Muscle Building		13.33	0	
	Improving medical condition		2.5	1.25	
	To improve cardiovascular fitness				
3	Relaxation	Gender-wise participation levels of middle-aged people	0.001	0.001	Males show stronger and more consistent positive relationships between physical activity and goals like muscle building, competition, and maintaining health, while
	Enjoying spending time with others		0.001	0.001	
	Getting better at an activity		1	0.013	
	Intent to perform better than others		0.001	0.001	

	Doing activity with others		0.001	0.001	females exhibit a stronger link to social and cardiovascular benefits, despite a decline in perceived improvement over time. Both genders experience significant positive effects from relaxation and social engagement, but stress negatively impacts activity levels for both.
	Coping with stress		0.001	0.001	
	Maintaining a healthy body		0.001	0.001	
	Muscle Building		0.001	1	
	Improving medical condition		0.013	0.211	
	To improve cardiovascular fitness		0.066	0.043	

Table 5.3
Key findings on H3

Sl. No.	Independent Variables	Dependent Variable	Test	Result
H3: To identify the association between the gender-wise self-efficacy factors in the physical activity undertaken in the parks of sample respondents.				
Descriptive statistics and self-efficacy factors variable gender wise				
1	Improves Lifestyle	*Self-efficacy factors*	0.021*	Males demonstrated significantly higher self-efficacy in exercise-related factors like lifestyle improvement, planning, goal-setting, time management, and relapse prevention, along with better mental health and life
	Exercise as Displaced Priority		0.010*	
	Exercise Planning and Scheduling		0.042*	
	Self-Monitoring		0.15 (NS)	
	Goal-Setting		0.036*	

	Time Management		0.015*	satisfaction. No gender differences were found in self-monitoring, social support, or physical health, suggesting shared abilities in these areas; targeted support for females in behavioral planning may help reduce observed disparities.
	Relapse Prevention		0.028*	
	Physical Health Score		0.162 (NS)	
	Mental Health Score		0.031*	
	Satisfaction with Life		0.018*	

2	**Correlation between self-efficacy among male**								
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
	Improves Lifestyle	1							
	Exercise as Displaced Priority	0.45**	1						
	Exercise Planning & Scheduling	0.38*	0.30**	1					
	Self-Monitoring	0.40**	0.33**	0.41**	1				
	Goal-Setting	0.50*	0.28*	0.49**	0.46**	1			
	Social Support	0.35**	0.25*	0.30**	0.40**	0.52**	1		
	Time Management	0.42*	0.36**	0.45**	0.39*	0.50**	0.43**	1	
	Relapse Prevention	0.47**	0.32**	0.43*	0.44**	0.48**	0.38**	0.47**	1

*** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).*

Correlation between self-efficacy among female

		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
	Improves Lifestyle	t							
	Exercise as Displaced Priority	0.32**	1						
	Exercise Planning & Scheduling	0.35*	0.28**	1					
	Self-Monitoring	0.37**	0.31**	0.39*	1				
	Goal-Setting	0.40**	0.26**	0.42**	0.43**	1			
	Social Support	0.30**	0.20**	0.33*	0.38**	0.48**	1		
	Time Management	0.36*	0.30**	0.41**	0.37**	0.44*	0.40**	1	
	Relapse Prevention	0.38**	0.27**	0.40**	0.39**	0.42**	0.35**	0.41*	1

*** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).*

Table 5.3
Key findings on H3

Findings of the study

The question was posed to determine the respondents' qualifications. From the above table 16% of the respondents are Post Graduates. 15.2% of the respondents belong to the other than the qualification as identified for the study which was specified by them. 14.4% of the respondents are Secondary and Under Graduates. 13.6% of the respondents are Higher Secondary and Diploma holders. 13% of the respondents are Diploma. Lastly 12.8% of the respondents are Illiterate.

The research study shows that 52 % respondents are unmarried and 48% are married. 16.8% of the respondents are Business persons, 16% of the respondents are Professional, 15.2% of the respondents are from Service sector, 12.8% of the respondents belong to the others which was not specified by them, 11.2% of the respondents are into Domestic Work for the livelihood, 9.6% of the respondents are Agriculturists and Garments workers.

The responses regarding the duration of physical activities performed by respondents, 28% of respondents engage in physical activities for 60 minutes or more, 25.6% engage in physical activities for 20-40 minutes, 24.8% engage in physical activities for less than 20 minutes and 21.6% engage in physical activities for 40-60 minutes.

Physical activity/Exercise is important for improving health among people of all age groups. Middle aged people have less metabolism as compared to young people. This is the major reason that they have to be involved in physical activity of any kind physical activity. The public parks are easier and affordable as Bengaluru city has many parks. Moreover less Vigorous physical activity is what the middle aged can afford. The park management takes care of the equipment for ensuring the Physical activity in the parks.

Physical Activity helps in purifying impurities in the body and thereby leading to looking good and be healthy. More than one-third of the respondents strongly feel that physical activity leads to good health. 30.4% of the respondents strongly feel that physical activity helps improving concentration. 13.6% of the respondents have given neutral opinion about feeling energized by the physical activity. Physical activity helps in reducing the fat and also helps in being slim.

21.6% of the respondents find fun and interesting element in physical Activity in parks. Body Mass Index is important for an individual to maintain good health. Physical activity helping to maintain good shape and good image of self is opined to be true by 13.6% of the respondents. The physical Activity in parks is felt to reduce the feeling of pressure at work by 30% of the

respondents. About One-fifth of respondents have neutral opinion about activeness and health concerns through physical activity done in parks.

The Physical activity undertaken in the Parks is tested by the health experts to be yielding the Physical health and mental health. 46.4% of the sample respondents in the middle age category have opined that the Physical activity is high on the Physical health score. 24.8% of the respondents totally disapprove the benefits of mental health. About one-half of the sample respondents contend the satisfaction with life as resulting from the Physical activity undertaken in the Parks.

The affinity of individuals with family friends and other reference group is very much influential among the various factors influencing the physical Activity an individual undertakes in parks. Going to the park does earn friendship as there is tendency develop affinity with the reference group. 23.2% of the respondents moderately feel that friends influence the levels physical Activity in the park. The family members sometimes influence the levels of physical activity to the parks. 32.4% of the respondent's support the statement. 21.6% of the respondents expressed neutral opinion about the influence of family member. Employment status on the level of physical Activity undertaken in the parks. The number of members in the family does have an influence on the physical activity undertaken.

The city of Bengaluru is urbanizing and exploding. This limits the interaction between people and natural environments. Active use of parks is possible if they are situated nearby. Distance of parks is associated with the park use by the sample middle aged respondents. 61.6% of the respondent's agrees with the same. More than one-half of the responds opine weather conditions influence the level of physical activity undertaken in parks. 20% of the respondents feel that of active transportation has moderate influence on the level of physical activity undertaken in parks.

Participants in the research study were asked to point out the park features that influenced them to visit the parks for physical activity. 100 (20%) of the respondents expressed that lighting would influence to a moderate extent. 140 (28%) of the respondents turn down the Unspecified supporting amenities in influencing them in taking up physical activities in parks. The findings indicated that the rest rooms available in parks was felt by about two-third of the respondents to influence park goers to do physical activity in parks.

Prior research has shown that the physical characteristics of one's environment have wide ranging effects on affect and cognition. Neighborhood parks play an important role in promoting

physical activity. The activity area, condition and presence of supporting features have an influence on the park users and park-based physical activity levels.

The physical activity sought is mainly walking especially with the middle-aged people. If the park provide for walking, there is increased opportunities for middle-aged and old- aged people. Parks provide the opportunities for like-minded people to socialize relax and establish contact with nature. They have to provide grassy open space to enable walkability. Street connectivity provides access to park near home, providing facilities for range of physical activity depending on the park infrastructure. 61.6% of the respondent attribute to walk ability the parks, while 8.8% turndown the same. 24.8% of the respondents attribute physical activity to the park density at moderate level. 10.4% of the responses are indicating the park proximity to influence the physical activity among middle aged to a small extent.

The physical activities in the parks contribute for the natural ability of a person to attain and maintain healthy weight. Long-term park visits and persistence towards the physical activity enables the middle-aged people to promote health. About one-half of the respondents contend with physical Activity in parks to maintain weight. 51.2% of the respondents have opined that weight management can be ensured through Physical activity in the parks for the middle aged.

The park environmental factors influencing the physical activity undertaken in parks by the middle aged is mustered from the respondents. 25.6% of the respondents opine that the condition of the parks has a great influence on the level of physical activity among the middle aged. 27.6% of the respondents find the park aesthetics to influence the physical activity to a full extent among the middle aged. Crime related safety has a moderate influence on the level of physical activity as opined by 22.4% of the respondents.

The neighborhood environmental factors is identified with four variables for the data collection. Street intersections is expressed by 22.4% of the sample respondents to influence to a great extent. Density to influence to a moderate extent as expressed by 21.6% of the sample respondents. Proximity of parks is turn down by 8.8% of the sample respondents.

The regression coefficient shows the relationship between the personal factors namely Reason to start Physical Activity in Park, Age in Years, Frequency of Physical activity in Parks, Persuasions for doing the Physical Activity in the Park, Marital Status, Covid outbreak, Gender, Part of Bengaluru, type of Physical Activity performed, Occupational Status, Educational Qualification, Reasons to choose the park for the Physical Activity, Duration of Physical

Activity have influenced (p=<0.05) the participation levels of the sample respondents in the parks.

The ANOVA result indicates that the factor of Physical activities participation levels in the Parks and the frequency of Physical activities by the respondents. The calculated F value is 0.821 respectively and the P value is 0.440 which is more than the significant level concerning the frequency of orders at 5 percent level.

The mean score of the Physical activity participation levels in the parks and the part of the Bengaluru city the sample respondents belong to is recorded above. North Bengaluru has highest mean score with 60.57 followed by West Bengaluru with 60.05. The average mean score for South Bengaluru, East Bengaluru and Central Zone has been 58 each.

The variables relating to motivations for physical activity in the Parks by the respondents Reinforcement, Exercise planning and scheduling, Time management, Physical health Score, Satisfaction with Life, Mental health Score, Social support for exercise – family, Relapse prevention are statistically significant at a 5 percent level. But very few variables like social support – overall, social support, Goal-setting., Barriers self-efficacy, Self-monitoring, Lifestyle physical activity self-efficacy, social support for exercise – friends, Quality goal-setting practices, Exercise as displaced priority (p-Value is 0.065, 0.077, 0.153 ,0.374, 0.374, 0.493, 0.514, 0.717, 0.975) which is more than 0.05.

The ANOVA result indicates that the different factors influencing the respondent's level of Physical Activity in part of Bengaluru such as intrapersonal factors and community are statistically significant at 5% level. But personal factors and inter- personal factors do not differ significantly (p>0.05) concerning the frequency of orders at 5 percent level.

The correlation between different internal environmental factors like park features, Park aesthetics, Park Environment Factors and Neighborhood environmental Factors influencing the level of physical activity are positively correlated with each other (0.816, 0.889, 0.780) with significant level is 0.000, 0.005, 0.023. The relationship between all the factors is statistically significant because p value is less than 0.05. Hence, the null hypothesis is rejected.

The above table shows the correlation between different factors like park features, park conditions, Park aesthetics and Crime-Related Safety influencing the level of physical activity considering park environment. All the factors are positively correlated with each other (0.891, 0.756, 0.731) with significant level is 0.000, 0.034, 0.003. The relationship between all the

factors is statistically significant because p value is less than 0.05. Hence, the null hypothesis is rejected.

5.4 CONCLUSION

Age is closely associated with an individual's level of habitual physical activity, average body temperatures, the quality of sleep and the incidence of lifestyle-related diseases. The developed countries across the world have Physical activity guidelines across all the age groups to reduce the health risk and healthy aging. The physical activity cannot stop the biological aging process. The middle aged people need to take care of the less intensity Physical activity levels they engage in so that they are able to maintain the physical and mental well-being as also to maintain involvement with social and relationship activities. A healthy lifestyle has to incorporate the physical activity in the regular routine. The middle aged cannot do rigorous levels of Physical activity and also that individuals are physically least active in this age. The influence of energy expenditure on weight regulation or of aerobic intensity on cardiovascular health becomes more important. The parks of course can help in doing mild levels of physical activity wherein the benefits can start accumulating with small amounts of, and immediately after doing, physical activity.

Physical inactivity is now identified as the fourth leading risk factor for global mortality. Physical inactivity levels are raising in many countries with major implications for the prevalence of non-communicable diseases (NCDs) and the general health of the population worldwide. Lack of interest in physical activity may be indicative of other underlying factors such as depression, which is common among the aging population. There is a need to educate them with physical activity health education campaigns to sensitize them about the overall benefits from the physical activity. The residents of Bangalore face the rapid unplanned urbanization and globalization, which has resulted in the unhealthy environments and behaviors. The health system is deteriorating with the diseases they suffer from especially non-communicable diseases. Regular exercise and increased aerobic fitness are associated with a decrease in all-cause mortality and morbidity, and are proven to reduce disease and disability, and improve quality of life in

middle aged persons. The parks provide balance exercises and moderate-intensity, muscle-strengthening activities through provision for walking and stretching activities. This is helpful in maintaining the flexibility.

Physical activity, health and quality of life are closely interconnected. The human body was designed to move and therefore needs regular physical activity in order to function optimally and avoid illness. Opportunities to be physically active tend to decrease as we become adults and recent lifestyle changes have reinforced this phenomenon. Due to the great inventions of recent times, there has been a marked decrease in the amount of physical effort necessary to do daily household chores, to go from place to place (car, bus), and even to reach leisure activities (including those with a physical activity content). Promoting physical activity beneficial for health, particularly among older adults aged 50 years and above, is becoming a challenge for public health sector specialists in highly developed societies. Actions taken in this field must be based on a thorough diagnosis of health-oriented behaviors of various social groups, particularly of the role of rational physical activity.

5.3 RECOMMENDATIONS

- There is a need for healthy public policy which focuses on ways of increasing volitional activity among older people, as well as on increasing the availability and accessibility of senior and community center programs for promoting physical activity.
- The Public parks as a social inclusion or mainstreaming must be given high priority by healthcare providers, government agencies, and advocacy groups.
- According to available data, between 40 and 60% of the EU population lead a sedentary lifestyle. It is therefore important countries to draw up national plans in support of physical activity in order to help modify unhealthy life habits and promote awareness of the benefits of physical activity in relation to health. These plans would take account of the environment, customs and cultural characteristics of each country.
- Activity such as walking, jogging or rowing can take place not only in an urban environment and public parks are helpful in this regard.

- In addition to engaging in regular physical activity, all adults should be encouraged to decrease the total amount of daily sedentary time and to break up sitting time with frequent bouts of activity.
- There is a need to self-compassion to do physical activity. Self-regulation is a useful construct for undertaking the regular physical activity in parks.
- To support the goal of successful aging, endeavors to help middle-aged and older adults maintain regular physical activity are critical. The public parks are helpful in this regard to can serve as means of medical, social, health behavioral, and environmental areas for the Physical activity.
- Middle-aged people tended to accept their gradual physical deterioration with age and that this was inevitable. With no overt signs of unhealthiness these participants adopted the attitude of living in the present. For these individuals, fitness was not perceived as having a preventative role, but rather was perceived as addressing/treating a condition.
- The efficient promoting of properly dosed physical activity, particularly among older adults, is therefore considered as a social goal of utmost importance for institutions and individuals responsible for its completion.

1) **To identify the physical activity participation levels of Middle Aged People**
    - The middle aged people must workout weekly physical activity tentatively to do regular physical activity in parks
    - The parks offer a feature of mild physical activity opportunities for the middle-aged like paths and trails for walking, jogging and the like.
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2) **To determine the physical activity participation motivations among active Middle Aged People.**
    - The parks must incorporate modern fitness equipment suitable for physical activity across all age groups.
    - Socialising in the parks intends to social interaction while engaging Physical activity

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3) To understand the factors influencing the level of Physical Activity

- Socializing with the friends in parks will be a motivating factor especially with the women.
- Park based physical activity depends on the size, proximity, facilities available and park design characteristics. The management has to look into the same
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4) To understand the influence of external and internal environmental factors on the level of Physical activity among the middle aged people.

- Physical activity in the parks must provide suitable physical environment
- Parks in the vicinity of the residence helps in mild physical activity among the middle aged people
- City Planners and BBMP must have to consider park designs and the likely management of the same to benefit the general good of the park visitors for exercise and other physical activity

- Quality of the Parks must be upgraded from time-to-time to stimulate the Physical activity among the middle-aged people.
- Safe, nearby, sophisticated and scientific environments must be created in parks to provide engaging Parks for the physical activity to middle-aged people.

RECOMMENDATIONS FOR FURTHER STUDIES

The present research programme is a study centred around the level of Physical Activity motivation among the middle aged in the Parks in the context of Bengaluru. The present research work has enormous potential for further studies and new dimension researches in the related areas.

The following are some of the recommendations for future research.

- A Theoretical Study of Physical Activity Guidelines in various developed countries as a roadmap to India
- Physical Activity among the middle aged in gyms – A Case study of Bengaluru

- Awareness of Physical activity among the middle aged – A Comparative study of Pre-covid and Post- covid scenario
- A critical study of the challenges and opportunities for physical activity among the middle aged at home.
- The Physical activity among the youth – A Rural and Urban area study
- The avenues of physical activity for the growing children in Urban areas
- The role of schools and colleges in educating the girl children about the Utilitarian of Physical activity